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June 1959

office management

the magazine for management executives

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in this issue

- New programming approaches simplify computer applications
- How to develop an effective record retention schedule
- Why not "talk away" your heaviest paperwork burdens?

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JUNE 1959

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office management

Office Methods, Equipment, Personnel, and Purchasing
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in this issue:

New programming approaches continue to simplify computer applications **27**
by Robert M. Smith

Is your company exploiting all the possibilities of service bureaus? **30**
by Gerald Murphy

Office built over coal mine combines economy, efficiency, attractiveness **32**

Why not "talk away" your heaviest paperwork burdens? **34**
by Benedict Kruse

How to develop an effective records retention schedule **37**
by F. L. Sward

"Total systems" approach to integrated data processing pays off for Seagram **39**
by Joseph C. Blunt

Automation in the office **43**

Tools of the office series **48**
This month: Mailroom equipment
by Mary D. Lyons

Salute to NOMA (*Editorial*) **90**

THE NATION'S banks, in an era where credit cards and the ubiquitous checkbook are rapidly replacing cash, have been among the first private businesses to recognize the advantages of nationwide standards for automated procedures. They are reaping the benefits: last month another major manufacturer offered a line of equipment based on American Banking Association standards. See story, page 43.

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Controller's duties expanding accounting group told

Today's controller should make his "most significant contribution to management" at the point where his accounting knowledge leaves off, Ezra W. Moscrip, manager, Management Control Division, Barrington Associates, Inc., told members of the New York Chapter, National Association of Accountants, last month.

The controller in the modern company, the New York management consultant reported, is expected to meet three basic responsibilities:

1. He must serve the organization as a whole, coordinating all planning and control activities without bias;

2. He must serve top management, creating a streamlined reporting system and assisting in appraisal of results compared to objectives, and;

3. He must serve subordinate executives and departments by providing them with the procedures, forms, and processed data they need.

In conclusion, Mr. Moscrip said "The comprehensive singleness of purpose now establishing itself in modern management is based on intelligent application of the customer-oriented philosophy often referred to as the marketing concept. The controller in every forward-thinking enterprise must now have a business ear attuned to the sounds of the market place as they affect the destiny of the business. The celluloid collar bookkeeper with quill in hand is just as out of date as the controller who thinks in terms of past performance only, or who fails to accept the teamwork attitude required to compete profitably in today's rapidly changing and highly demanding markets."

Maytag Foundation awards 24 college scholarships

The Maytag Company Foundation, Inc., Newton, Iowa, recently named 24 high school seniors to receive Maytag foundation scholarships. The four-year cost to the foundation of the scholarships, which are restricted to children of Maytag employees and seniors at Newton High School, is estimated at $53,000. Since the initiation of the scholarship program in 1953, over $300,000 has been spent or allocated on a total of 115 awards. A total of 15 students have been graduated under the program, while 49 students are still attending college. Recipients are

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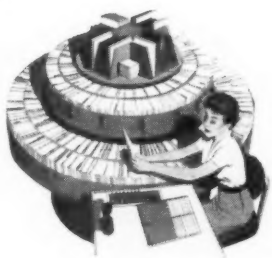

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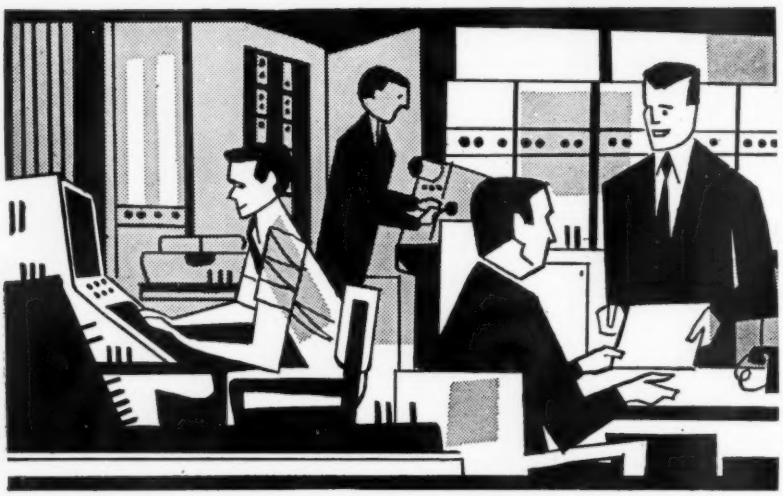

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AUTOMATION IN THE OFFICE

Since the appearance of the first discussion on the subject of Automation in the Office in the August issue of 1952, OFFICE MANAGEMENT has published articles on Automation on a regular basis to keep the office abreast of everything new on this modern technique. Here are some typical ones:

JANUARY, 1958
How to prepare an office for a computer installation
FEBRUARY, 1958
Basic steps in programming a computer for a single operation
by Ben Conway
JUNE, 1958
Why small companies may need automation even more than larger concerns
by Robert M. Smith
JULY 1958
Why small companies need automation even more than larger concerns
Part 2 Equipment for "Automation in the Office"
AUGUST 1958
Why small companies need automation even more than larger concerns. (Conclusion)
SEPTEMBER 1958
The role of automation in freeing managers for more creative work.
OCTOBER 1958
Why new computer coding techniques may accelerate pace of office automation — by Robert M. Smith
JANUARY 1959 (Yearbook Issue)
Effects of recession still felt in current trends in automation
by Robert M. Smith

WHAT IS AUTOMATION IN THE OFFICE?

Automation in the office is the use of the rapidly multiplying new systems developments and facilities of electronics to synchronize the functions of separate units of equipment into an overall operation. Importantly, while it can and does employ the latest in electronic computers and other new devices, it does not necessarily call for costly or experimental type of machines and equipment. Equipment presently in use in every modern office in America can be geared in one way or another to Automation.
As new progress is achieved and case histories are reported, OFFICE MANAGEMENT will carry the great story forward.

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selected on the basis of high school scholarship records, activities, and college aptitude test scores. Individual financial need determines the type of award to be given. A full scholarship pays tuition and fees with a cash grant of $150 a year to the student. A half-scholarship covers half of this amount. An unrestricted grant of $500 is also given each school attended by a scholarship winner, while $250 is given in the case of those on half-scholarship. The scholarships may be annually renewed if satisfactory academic progress and good standards of personal conduct have been maintained.

Robert E. Vance, the president of the Maytag Company Foundation, has also announced an employees' educational gift-matching plan aimed at providing financial assistance to institutions of higher education. The new foundation program will match the contribution of any employee to a maximum of $500, with no minimum limitations. Mr. Vance, vice president and secretary of the Maytag company, said, "The Foundation is establishing this program to encourage added individual interest in the future of education—because the safety, well-being and progress of this country and everyone in it depends upon that future."

OEMI plans to sponsor series of regional business shows

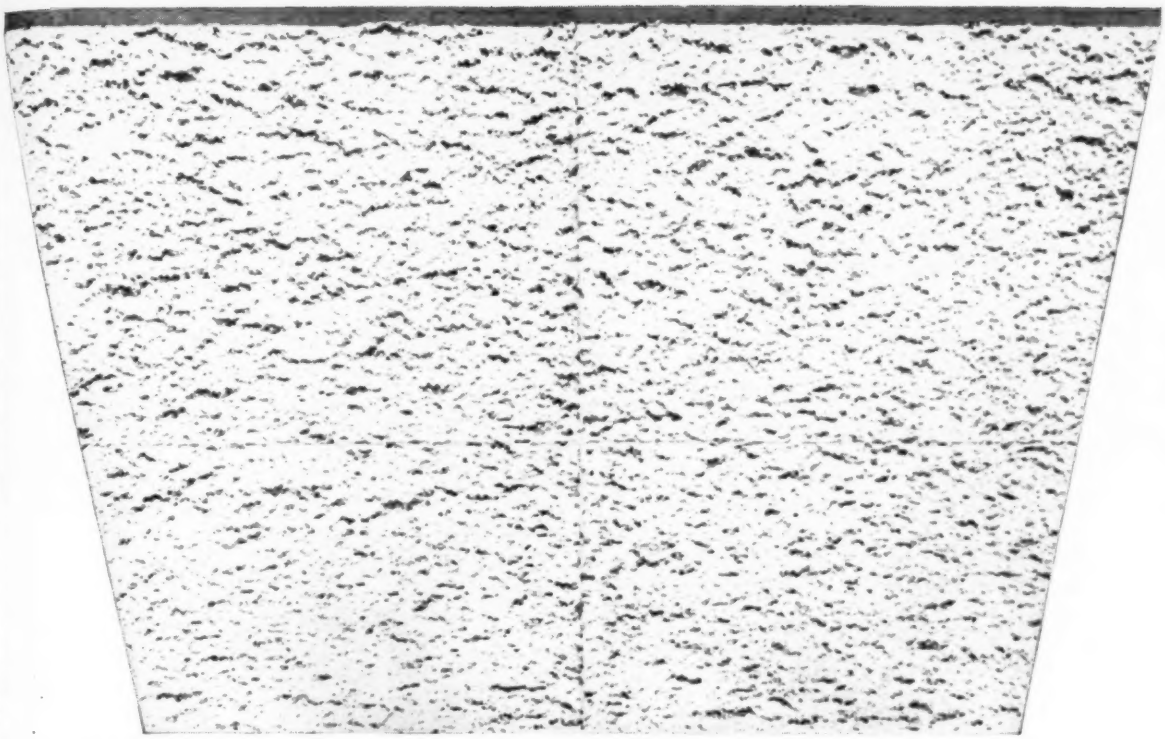
The Office Equipment Manufacturers Institute, a trade association composed of major American business equipment manufacturers, will hold the first of a series of annual regional business shows in Washington, D. C., September 23-25.

The permanent program of shows will be carried out under the direction of Office Equipment Manufacturers Exhibits, Inc., a newly organized "action" affiliate of the Institute, according to E. D. Taylor, administrative vice president of the parent organization, and president of the exhibit group.

At least four shows, in the South, West, Midwest, and East, will be held each year, following the inaugural show in Washington, Mr. Taylor reported.

The inaugural exposition in Washington will stress "animated demonstrations" of machines, equipment, systems, and techniques.

Rudolph Lang, who was until recently director of the National Business Show in New York, has been named managing director of exhibits for the OEME.



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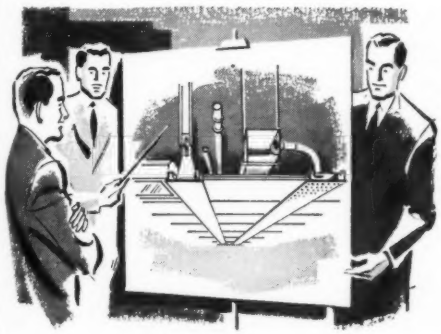

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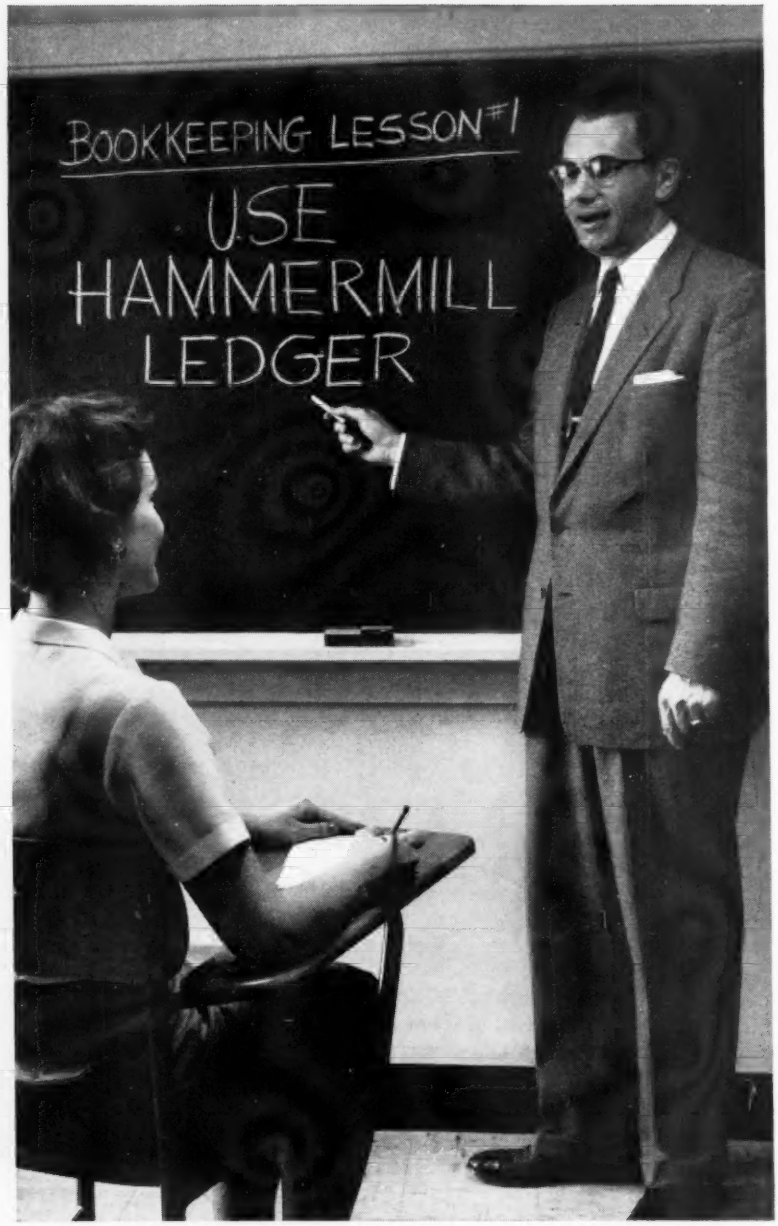

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Taxes take quarter of average worker's income, CCH reports

Mr. "Average American," the hypothetical middle-of-the-road creature resurrected annually by the Commerce Clearing House, national reporting authority on tax and business law, is faced with the prospect of paying out 25.3 percent of his future earnings in taxes, a minimum of $47,221.18 in the remaining 36 years of his life. The age of Mr. Average is established at 29 years; other vital statistics include an average annual income of $5,183.71, a wife, daughter, age two, and son, age five, a low-priced car and a mortgaged home, the taxes on which are calculated to be $214.17 per year. These statistics, outlining the financial profile of the average man, are taken from a review of Federal, state and local taxes reported in the CCH magazine, *Taxes*. The report is entitled, "Who is the Average American Taxpayer?" The standard tax charges for the years prior to retirement at the age of 65, under the present tax rates, are figured by the Commerce Clearing House, as follows:

Federal Income	$20,870.52
Social Security	7,248.00
Real Property	7,710.12
Personal Property	720.00

Mr. Average is expected to buy a new car every five years (a total of seven) at current prices, and to add 9,400 miles to his speedometer reading each year of operation. The total cost of this travel at present tax rates, including excise, gasoline, (city and state), licenses, and lubricants, will amount to $4,236.86 during the normal working span.

The total tax figures include deductions for the taxpayer and three dependents for 17 years, and the jump in tax rate for the remaining 19 years when his children become self-supporting. The CCH also reports that higher earnings through the years will raise the amount of income tax to be paid.

The report points out further that the taxes on many things he is expected to buy are not accounted for in his budget: sporting equipment, for instance, carries excise tax. Variable local taxes on utilities and amusements could also raise total outlay. The CCH report also commented that, taxwise, the average wage earner seems to be retrogressing. In 1951, 22 percent of his earnings were devoted to taxes, while 1959 will find 25.3 percent of

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Philosophy and policies of wage incentives, plus specific material on design, installation, and operation of programs. Additions include: evaluating, revising plans; definitions; expanded parts on man-machine use, wage measurement, and union relations.

1959. 227 pages. $7.00

MEN WHO MANAGE

By MELVILLE DALTON, University of California.

Subtitled "Fusions of Feeling and Theory in Administration," this is a deep study of constructive compromise and how it operates in business and industry. Using confidential case material, it describes both formal and unofficial actions of management as it strives to attain its goals. It also examines the struggle between "methods" men and those who stress ends over means. **1959. 318 pages. $6.75**

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his income jingling in the pockets of the tax collector.

A note of optimism is sounded by the CHH, however. The typical taxpayer, being average, will live to the ripe age of 70, thereby enjoying five years of tax free social security benefits.

Hertz introduces centralized billing for business accounts

Companies and large organizations whose representatives utilize Hertz Rent-A-Car facilities are now eligible to receive a new Hertz "Automatic" charge card. The new, embossed charge card is designed to provide centralized car rental billing service, so that the concern using the service receives only one bill each month covering all Hertz rentals made in the U. S. by authorized company representatives or other qualified individuals. Those in possession of the new "Automatic" charge card will not be required to make the usual pre-rental deposit.

Joseph J. Stedem, Hertz executive vice president, explained that the laminated charge card used previously may still be used for charge purposes but it will not be used in the centralized billing procedure. The new service is designed to help simplify the growing accounting problems faced by many of the businesses using Hertz facilities, Mr. Stedem said. He added that, "The new system will eliminate countless hours of paper work now handled by these customers, assist them in controlling travel expenses, and will assure immediate identification, credit and billing references." The new centralized billing system makes use of a variety of IBM equipment to make it ". . . the most efficient accounting system of its kind," a company official reported.

Computer translates printed texts into Braille

IBM mathematicians working in conjunction with the American Printing House for the Blind, have produced a method of printing Braille texts through the use of an electronic computer. The translation of printed text into Braille at electronic speeds is expected to make up for the serious shortage of literature available to the 350,000 sightless persons in this country. The shortage of Braille texts has been primarily due to the normal two-year period of training required to produce a qualified Braille translator. However, the new method of creating Braille, utilizing the standard IBM 704 data processing system, can translate a 300-page book in an hour, a task which formerly required more than six days' work by a skilled translator.

Braille consists of 63 combinations of six raised dots that represent the alphabet, numerals, punctuation marks, as well as 183 special contractions and abbreviations resembling shorthand. Therefore, writing Braille involves many complicated rules of usage, where a symbol often changes its meaning in various context. The text material to be translated by the computer is transferred to punched cards by means of a key punch with a conventional typewriter keyboard. The punched cards are then fed into the computer which contains in its memory a set of rules to be followed in the Braille conversion. The translated text next emerges from the computer in coded symbols on punched cards, which in turn are fed to a printer that reproduces the Braille symbols above the English text for further editing. Once edited, the punched cards are fed to an embossing machine which creates metal plates to be used in a rotary press.

The successful application of the 704 data processing system to the problems of Braille reproduction represents the result of a year of research and experimentation by the Mathematics and Applications Department of IBM's Data Processing Division.

British trade exhibition will open this month in New York

The latest products of British science, technology and engineering, as well as traditional British luxury goods, will be featured at the two-week British Exhibition, to be held at New York's Coliseum, June 10-24.

The exhibition, which is expected to be the largest ever staged by one country within the national boundaries of another, is being organized by the Federation of British Industries, and has as sponsors, the British Government, the Dollar Exports Council, and the British-American Chamber of Commerce in New York.

The British engineering products display will include individual exhibits of office equipment, electronics, automation and instrumentation, as well as displays of light and heavy engineering products, electrical, mechanical, and

(*To page* 16)

THE MARCHANT *transflo...*

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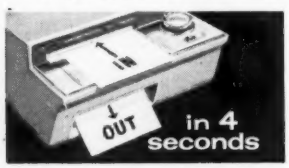

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In Short—

New York OEA gives Pace College business education library

A new "Business-Education Library" has been donated to Pace College by the Office Executives Association, the New York Chapter of the National Office Management Association. The library consists of books, periodicals, articles, and reports selected by a committee of prominent industrial leaders and educators as the most valuable current publications in the field of office management. According to Mr. Sidney Blitz, chairman of the O.E.A. Business Library Committee, one of the factors leading to selection of Pace College as the site of the library was its central location, which makes it convenient to most New York business firms. The library is available to all metropolitan area high school teachers of business subjects, and to members of the Office Executives Association. Pace College is located at 41 Park Row, New York 38.

Underwood acquires Electrofile Corp. in move to diversify product line

The Underwood Corporation, manufacturer of integrated data processing systems and office equipment, has recently acquired the Electrofile Corporation from Johnson Fare Box Co., a subsidiary of Bowser Inc., Chicago. The Electrofile Corporation manufactures electromagnetic filing units which combine coding, verification, housing and identification and selection functions. Frank E. Beane, president of Underwood, described the new acquisition as part of a program to diversify the company's products.

"Electronic Messenger" offered on monthly rental basis

The Facsimile Division of Electronic Communications, Inc., has announced the availability of the "Electronic Messenger," two-way facsimile machine, on a month-to-month rental basis. The "Electronic Messenger" is said to be the only facsimile machine

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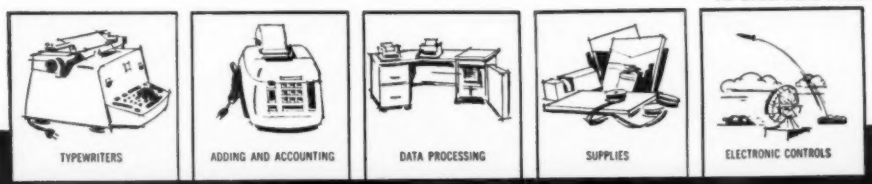

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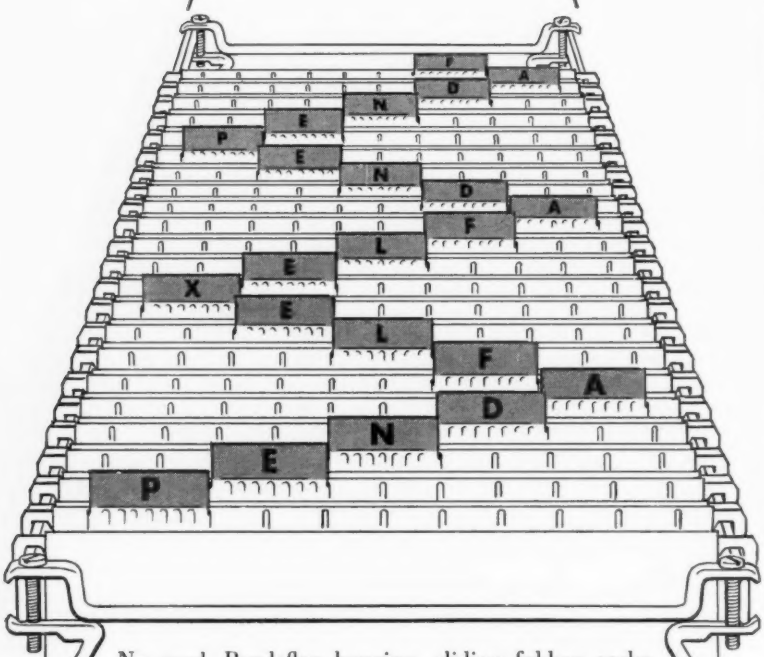

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that can receive and send exact reproductions of written or printed matter, photographs, and other material, over distances by either telephone wire connections or microwave systems. Company sources stated that the new rental plan will allow companies not wishing to make an initial capital investment for outright purchase to utilize the facsimile equipment.

Books and Pamphlets

BUDGETING: Principles and Practice, by Herman C. Heiser. 415 pages. The Ronald Press Co., 15 E. 26th St., New York 10. Price, $10.00. Methods of planning and coordination through the principles of budgeting receive realistic treatment in Mr. Heiser's authoritative book for managerial personnel. He states in the preface that, "Budgeting as a management tool, has assumed a major role in the management function. While originally the budget constituted a financial document, there has been an ever increasing trend toward extending budgeting to include the planning, coordinating, and controlling of the entire operation of a business. Thus, budgeting becomes a function of the entire management team."

As explained in the preface, the book has two major emphases:

1. Planning and coordination, plus control, which constitute the dual aspects of budgeting.

2. Detailed application of the principles and procedures of planning, coordination, and control to various aspects of the budget.

In order to present clearly these major areas, the book is organized into three parts and appendixes.

Part I, composed of five chapters, is given to a review of budgeting for the purposes of planning and coordination. Chapter 5 is entitled, "The Budget in Final Form."

Part II, consisting of three chapters, discusses budgeting as a tool for control, including measurement of deviations from expected performance standards in planned and actual operations.

Part III, which has twelve chapters, is a detailed study of the techniques of budgeting and controlling each of ten major categories of income and expenditure.

The volume, which contains many illustrations, emphasizes the managerial phases of budgeting rather than its more routine aspects. (*To page* 22)

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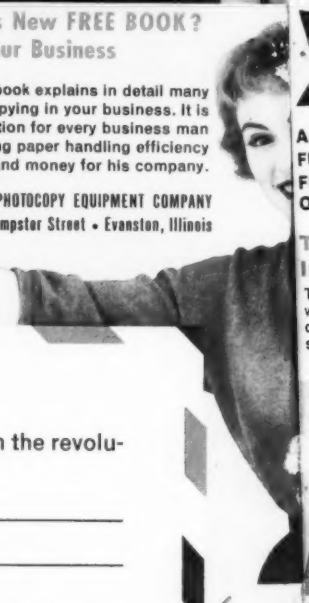

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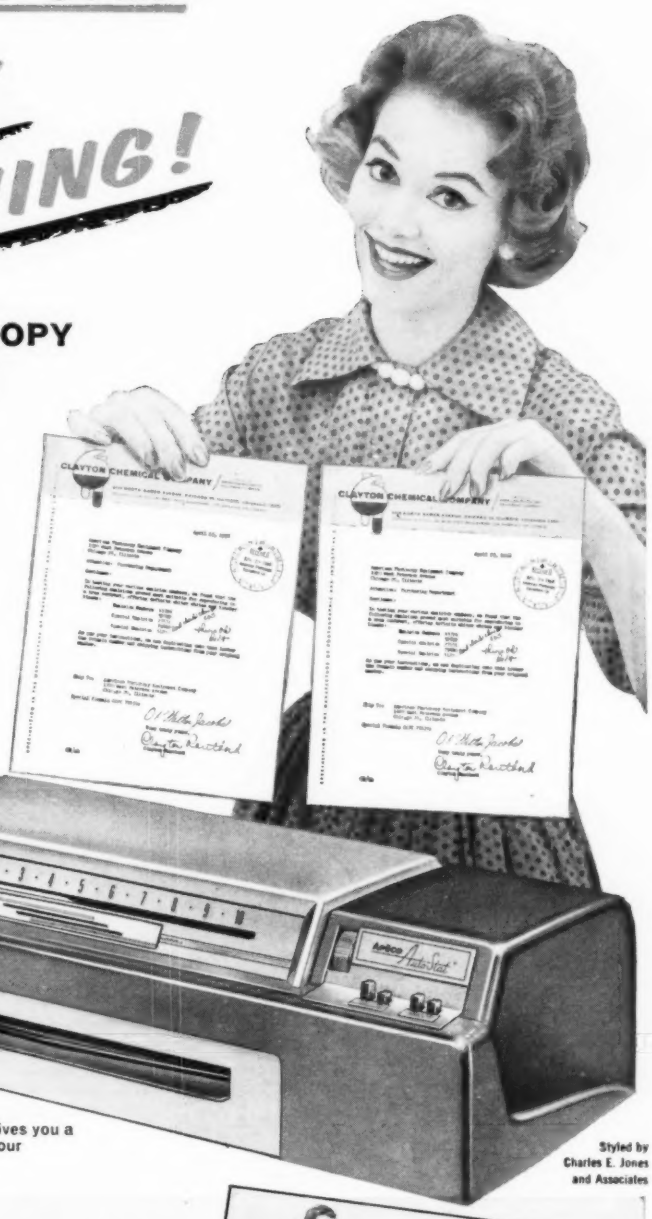

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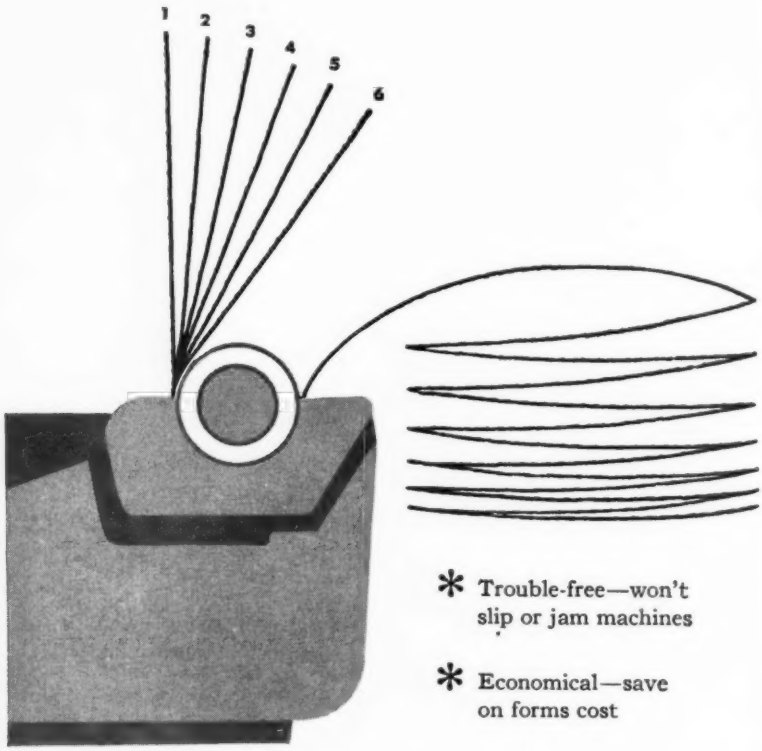

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Books and Pamphlets
(*From page* 18)

PERSONNEL ADMINISTRATION: EVALUATION AND EXECUTIVE CONTROL, by James H. Taylor. McGraw-Hill Book Co., Inc., 330 W. 42nd St., New York 36. 305 pages. $7.00. For management executives and personnel men interested in increasing the effectiveness of their program, or for those who are seeking to establish a new program, this book should prove an effective pivot point in personnel organization. Written to meet the needs of small as well as large organizations, the book discusses methods of attracting high-caliber personnel to aid in the continuing growth of the firm, and step-by-step procedure for the hiring of personnel is outlined with special emphasis on the techniques of college recruiting. The workable plans presented for setting base wage or salary, over time pay, etc., affect virtually every position within the company, from top management to line supervisors and employees. Practical suggestions are given concerning employment security, retirement, sickness benefits, bonuses, and so on. Other important aspects of management are treated, such as relationships between the company and local or national unions, and between supervisors and employees. The book affords, within each chapter, a helpful guide for self-checking the reader's own company's practices against those recommended by the book.

PRINCIPLES OF BUSINESS LETTER WRITING, by Sally B. Maybury. Ronald Press Co., 15 E. 26th St., New York 10. 419 pages, $4.50. The importance of efficient business communications cannot, as modern executives know, be over-emphasized. A well written letter may sometimes be the only means of establishing important business relationships, and it always remains an important aspect of healthy business communications. The book in question puts particular emphasis on those broad principles which underlie effective business letter writing. It is essentially designed for use as a text book in short courses of business English. The text treats in detail matters of style, grammar, punctuation, letter form and elements, and all of the basic forms of business letters. It is aided visually by 32 illustrations, some of

(*To page* 25)

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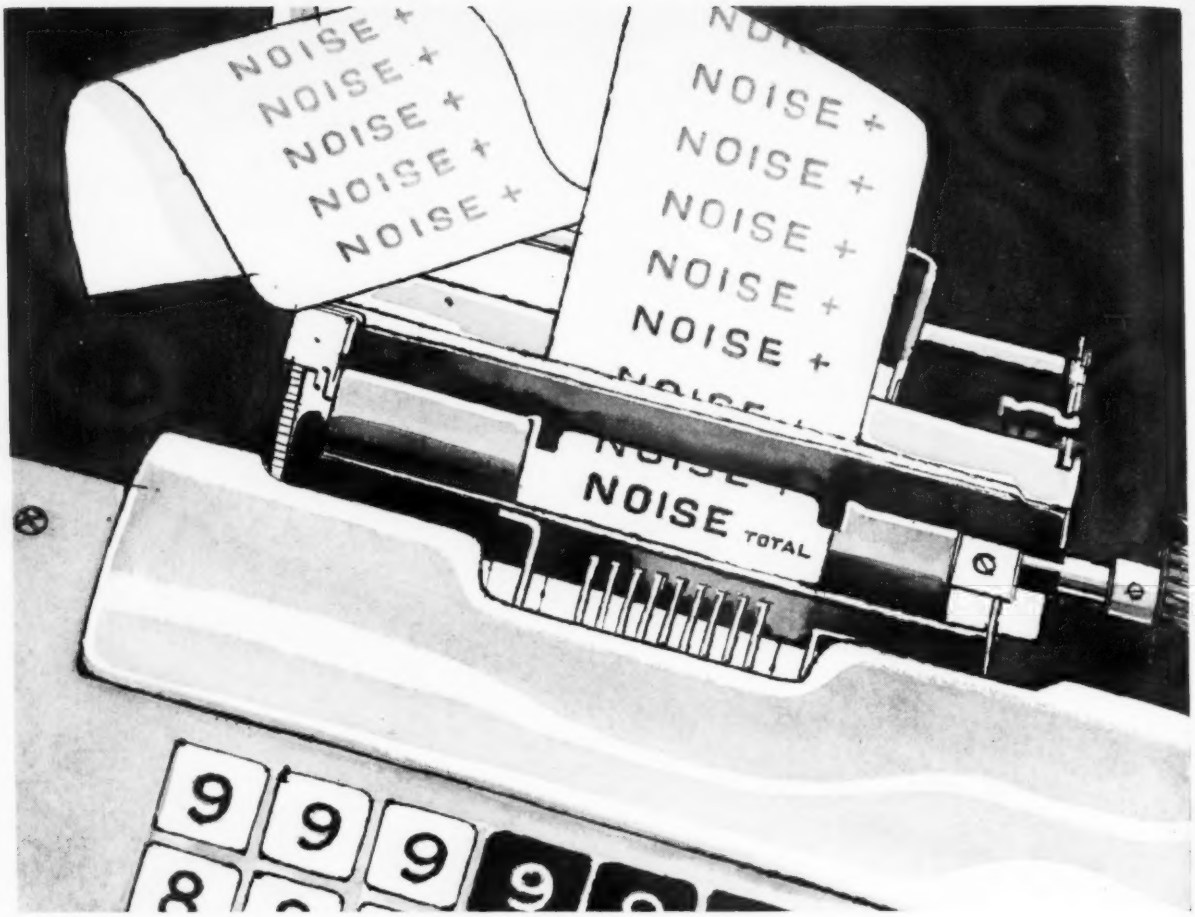

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(*From page* 22)

which are taken from actual business correspondence. Problem exercises are provided for use at the end of each chapter.

LAW OF RETIREMENT, by Libby F. Jessup. Oceana Publications, Inc., 80 Fourth Ave., New York 3. 80 pages. Clothbound, $2.00; paperbound, $1.00. "How to retire in eight easy lessons," might well have been the subtitle of this book, which stresses the many ways in which one can plan for a financially secure future. Mrs. Jessup, an attorney, clarifies for the novice the basic retirement income possibilities offered by social security, stocks and bonds, pensions and profit sharing plans. The text is liberally illustrated with detailed charts, showing tax rates, stock ownership plans, etc.

Coming Events

Tenth Annual Industrial Research Conference, Harriman, N. Y., May 31-June 5.

Sponsor: Columbia University, Department of Industrial and Management Engineering.
Place: Arden House.

AIB Conference, Philadelphia, June 1-5.

Sponsor: American Institute of Banking.
Place: Bellevue-Stratford and Sheraton Hotels.

Records Management Certificate Program. Washington, D.C., June 1-12.

Sponsor: School of Government and Public Administration.
Place: American University.

National Business Conference. Boston, Mass., June 6.

Sponsor: Harvard Business School.
Place: Harvard Business School.

CBEMA Canadian National Business Show. Toronto, Canada, June 8-10.

Sponsor: Canadian Business Equipment Manufacturers' Association.
Place: Automotive Building, Exhibition Park.

AMA Seminar: Effective Supervision of Office Personnel. New York, June 8-10.

Sponsor: American Management Association.
Place: Astor Hotel.

with the EDITORS

UNDER a recent Moscow dateline came the news that the Soviet Union, which has already set up a Ministry of Automation, is counting heavily on the techniques of automation to achieve the goals of its current seven year plan. The ultimate aim of the present effort, according to Premier Krushchev: "automation of all branches of the economy."

A grandiloquent goal? Perhaps — but even the most confident Americans should have learned by this time that Russian programs are not to be discounted or ignored. The bland assumption that Soviet technology could never possibly catch up with ours should have died forever with Sputnik 1. So this new objective is to be taken seriously — particularly in view of the current Soviet emphasis on winning the world by economic means. There is no doubt that the controlled Soviet economy will succeed in automating major segments of its productive capacities in the years ahead.

THIS poses a direct challenge to American business; a challenge which has already been made in less dramatic form by the nations of Free Europe, which are becoming such strong business competiters of America in the world market. The comfortable assumption is that low foreign wage scales make such competition possible; the harsh reality is that wage rates have risen much faster in France, Germany, and Great Britain since the end of the war than they have in this country. However, many of their industries have been completely rebuilt; there are factories in Europe that are far more completely automated than their industrial counterparts in the United States. Increasingly efficient production, rather than low labor cost, seems to be the real reason for the fact that many foreign products are outselling ours in world markets.

THIS may seem to be mainly an industrial problem, a question of factory automation rather than office automation. Actually, it is not. Production and administration are reciprocal functions today. Inefficiencies in the office will not only raise overall company costs; they will also raise unit production costs directly.

MANY of us learned during the recession that our companies had grown too easy and complacent during the prosperous years, too ready to believe that things were good and always would be, that the never-never land had finally been achieved. We learned better in 1958 as far as the domestic economy was concerned — but the nervous haste with which companies tried desperately to slash costs proved that it was an unanticipated lesson.

THE threat now is less apparent; the domestic economy is booming once more, and we are all inclined to breathe a sigh of relief, and relax. But for the long run ahead, we must insure that we do not relax too much. The immediate pressure to cut costs, regardless of the consequences, has been relieved. What better use, assuming we have learned the lesson of 1958, could we find for our present prosperity than using it to improve and modernize our entire working structure — in both office and factory — wherever it can be improved. Let's use the good years to insure that the years ahead will continue to be good.

Robert M Smith
Editor

AMA Seminar; How To Write Shorter and Better Reports. New York, May 13-15; June 17-19.

Sponsor: American Management Association.
Place: Astor Hotel.

NMAA 8th Annual National Conference and Business Show. St. Louis, June 24-26.

Sponsor: National Machine Accountants Association.
Place: Chase and Park Plaza Hotels.

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Edgar A. Wells-Castillo, Executive Vice-President, Celsa Corporation of America.

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New programming approaches continue to simplify computer applications

Modular programming, based on "primitives" which can be used as building blocks for various computer applications, advocated as more efficient than automatic programming—

by Robert M. Smith

THE WAVE of new developments in electronic data processing, which seemed to have dwindled to mill pond proportions in 1958 as consumer companies, made cost-conscious by the recession, concentrated on internal cost cutting rather than ambitious new programs, has built up again. So many new manufacturers are entering the computer field, each week brings so many new developments, that a speaker at one recent conference ruefully reported business management is finding it a major problem simply to keep abreast of new "hardware" and new techniques.

And in keeping with this acceleration of interest, both on the part of manufacturers and consumers, one of the most significant developments announced last year has already come under fire as cumbersome and wasteful in terms of new techniques.

It has been accepted since the first experiments with business runs on computers that one of the greatest problems facing the company installing an electronic data processor was programming and coding: the description of the steps the computer must follow in order to achieve the desired end results. Originally, these steps had to be laid out in exact, painstaking detail; each single operation the computer was to perform had to be spelled out, and spelled out moreover in terms the computer could understand. Since the terms the computer could understand were not the terms human beings were used to working with, that meant that specially trained coders had to be employed to "translate" the steps outlined in the program into the detailed operating instructions the computer was to follow.

A great advance was registered with the development of automatic programming, or, more properly speaking, automatic coding. This was based on development of "subroutines" — entire computer operating sequences which could be recorded in the computer's memory units. Each of these routines could be represented by a single English word or simple sentence. Thus, a fairly elaborate program could be encompassed in relatively simple operating directions. Each word in the direction would be translated automatically within the computer to represent one of the subroutines already stored within its memory. Thus the computer would in effect compile its own detailed operating program, on the basis of simple directions typed on its input mechanism. Each of these directions would be translated by the computer into a subroutine; the sum of the subroutines would be a complete operation. (See Office Management, October, 1958, page 27).

The advantages of such a system were manifest. In the first place, it

There are so many new computer developments that it is becoming a management problem to keep abreast of them

Under automatic programming techniques, a basic clerical worker can be trained in a few weeks . . .

could relieve an immediate problem of personnel. Trained programmers could map out a simple flow chart program, and then turn it over for coding to company personnel trained to interpret the programmer's flow chart into the relatively simple directions required for the computer.

This development radically reduced the time requirements for preparing programs, and also relieved the personnel pressure, since clerical personnel could be trained in a relatively short time to act as coders.

The newest development reported in this field involves a compromise between the principles of "hand tooled" programs and "automatic programming". At the recent American Management Association electronic conference in New York, while most of the participants present praised "automatic programming", one speaker, even while conceding it had speeded up the writing of programs immensely, offered a new concept employed by his company which he claimed to be far more efficient than automatic programming, and more economical as well.

Jules Mersel, of the Space Technology Laboratories, Inc., Los Angeles, Calif., speaking at the conference, said that his organization had developed a generalized programming technique, which is based on "modular" construction of programs. This, he said, required a little more programming time than automatic programming, but has proved far more efficient in terms of the time required by the computer to solve a given problem.

Drawbacks of automatic programming

"Automatic programming," he reported at the conference, "though it still did not take a systems approach to the problems which beset any one installation, still offered great hopes in its ability to cut down the elapsed time between the point where a problem was decided upon, and the point when the initial answer came back to the original requester. Automatic programming, however, has not received universal acceptance. The main objections to it have come from the professional programmer who has been quite conscious of the fact that the machine is used much less efficiently than it would be in a hand-tailored program, and that errors in the formulation of the problem are much harder to find because there is no skilled coder who knows the internal workings of the problem on a machine, and therefore no one who can use this knowledge to help find the errors in the problem."

As an alternative, Mersel said, his organization has developed the "modular" approach, in which programs are prepared by professional programmers, and coded by professional coders, but are broken into units — units which may later be incorporated whole into a totally different program.

"This approach is one that has been evolving from the professional programmers who objected to the inefficiencies of automatic programming," he reported, "If it has any name at all, it could be called generalized programming. It is based almost entirely upon a modular construction of programs, and it's interesting to note that at the same time this approach has been developing in the solution of problems on high speed digital computers this approach has also been developing in the construction of high speed digital computers. By modular construction I mean the building of the very, very small segments of programs in such a way that they can be used for any program at any time. Now this is very similar to what I described earlier when I was discussing subroutines. The difference, however, is that it was thought that this type of construction was only worthwhile if you already knew that other people would want to use the type of programming that you were doing. In the generalized programming approach it's assumed that anything which goes into a problem may be of use again in the future, and should be treated so that it can be used again.

"The trick," he continued, "is to

. . . to code programs, prepared by a professional programmer, for translation by the computer into its own "language"

make these modules as small and as primitive as possible. Now these little modules of course can be connected to make bigger modules. The big modules can be changed by just changing any one of the little modules that form its constituents."

The distinction between this type of modular programming and automatic programming, as Mr. Mersel pointed out, is a fine one, but basically, perhaps, it could be expressed this way: automatic programming implies a set of routines built into the computer's memory by the manufacturer, each of which can be denoted by a simple direction in clear language. Since the emphasis is on terseness and simplicity of coding, the subroutines must themselves be quite elaborate, and must be applicable to a variety of different situations. In generalized programming, on the contrary, the program "pieces" — the primitives — are small, and therefore more of them must be put together to form a complete program. The program, however, once completed will be a more efficient one than will be true of the automatic program — more efficient in terms of machine time needed to run through the problem.

To use a very rough simile, the difference between the two techniques might be put in terms of building an automobile. If automobiles were built individually, as computer programs are, they might be constructed in two entirely different ways. Major components of vehicles could be constructed as units, and then assembled to make any particular automobile desired. But that would mean that the engine, constructed as a single unit, would have to be an engine that could serve as power plant for a car of any size and any purpose. Such an engine could be built but it would not be as efficient an engine for any purpose, as it would if it were designed specifically for a particular type and weight of machine.

Advantages of modular programming

This would be similar to the "automatic programming" technique, in which all a computer's basic operating directions can be encompassed in as few as thirty simple commands.

On the other hand, if cars were to be assembled individually, it would be possible to make interchangeable parts for each segment of the machine, so that a large motor could be constructed for a large car, a smaller one for a small vehicle, although each would still use the same spark plugs, the same carburetor, the same battery. This type of construction would, of course, require more time for production of each car, but presumably would result in a more efficient end product.

And this type of design would be analogous to the generalized programming approach described by Mersel.

He defined automatic programming as an excellent device for use with any problem or application that is only going to be run a few times on a computer, but as far too expensive, in terms of machine time, for use with a problem or application that is going to be run constantly. In other words, automatic programming will give a program, a program that will achieve the required results, but it will not be as efficient as a modular program.

Doesn't the modular concept represent a return, though, to the days when every program was "hand-tailored", every step spelled out for the computer by a highly trained professional?

Again, according to Mersel, it does not, since the program is built on small sequences of actions applicable in a number of different applications rather than single actions. Moreover, he maintained, the modular system permits individual applications to be completed without the necessity of designing an entire paperwork processing sequence first. As a matter of fact, he declared, the system is built as individual problems are solved. This offers the dual advantage, he believes, of getting immediate results from a computer in single areas, without waiting for an entire system to be evolved.

(*To page* 78)

Service bureaus often "package" a whole task force to take over big but temporary projects like converting from manual to punch-card methods

Is your company exploiting all the possibilities of service bureaus?

They can offer many facilities, but the question is, how do you gauge their work beforehand? Here are some ways to evaluate the costs and other factors involved—

by Gerald Murphy
Vice President, Fairbanks Associates, Management Consultants, New York

WHEN a company is planning operations, the service bureau is frequently classified with concerns which it retains to service equipment such as typewriters, tab equipment, air conditioners, etc. In other words, it is considered necessary only when something breaks down.

We do not normally tend to evaluate our own costs versus outside costs. In our homes, for instance, we never attempt to compare annual laundry bills to the costs of installing and maintaining a washer, dryer, and ironer, not to mention the expense involved for space, water, and that small matter of labor, which is so often considered a free item. (And it is—if two can live as cheaply as one.)

In business, your decision to use a service bureau instead of, or in addition to your own punched card installation, is of tremendous importance to your company and to its data processing. The value and cost of reports and records to every business is well worth the time which must be spent on an adequate appraisal of the possible uses which service bureau facilities might have for your company.

However, no scientific evaluation can be derived without a definition of the terms and scope of the problem in question, and right now we would like to explain just what we mean by the term, "service bureau."

Too often we consider a service bureau simply a collection of punched card equipment and machine operators located away from our premises, where human and machine time is for hire on an hourly, job, or volume basis. Actually, outside service organizations offer many useful facilities which are often disregarded. In fact, the concept

of the service bureau should be rightfully expanded to include all the possibilities of using equipment and/or personnel (outside our own organization) to perform all or part of our punched card and related clerical processing.

Let me use an actual case to illustrate how one common problem was solved by effective utilization of an outside service organization.

Since it may be difficult to envisage service bureau equipment being moved to your office, our example deals with the use of personnel furnished by service bureaus. We hope to illustrate the fact that it is often feasible to utilize outside personnel (planners and programmers, supervisors, machine operators, typists, and clerks) for temporary periods in order to augment your own staff on your own premises.

This particular application involved the conversion of an order entry, and billing and accounts receivable operation from manual to punched card methods.

The conversion had to be effected on a tight time schedule just prior to and during a peak business season without interruption of order processing.

The major operations to be converted were:

1. Editing of account information, including assignment of account number and other coding.
2. Editing of product information, including pricing, coding, etc.
3. Key punching.
4. Proofing.
5. Sorting.
6. File set-up including guiding.

The company's own staff and equipment assigned to this application on a permanent basis could provide only a small portion of the total time required for the conversion within the scheduled period. Moreover, space was available for additional personnel and machines for a limited time only.

Close and continuous liaison had to be maintained between the personnel working on conversion and the clerical departments doing the manual portion of order processing. And finally, the original records which were the source documents for conversion had to be available for constant reference.

Our problem was: How to obtain temporary equipment and personnel for a major conversion on the company's premises, without the usual problems encountered in such an approach, such as:

1. Hiring costs (including advertising, interviews, records and other overhead items).
2. Absenteeism and lateness (normally high among temporaries).
3. Below-standard production (the weeding-out process to find acceptable employees).
4. Termination costs (including increased unemployment insurance payments).
5. The effect on permanent company personnel (sizeable wage differentials must often be paid to attract skilled workers to temporary positions).

Our solution:

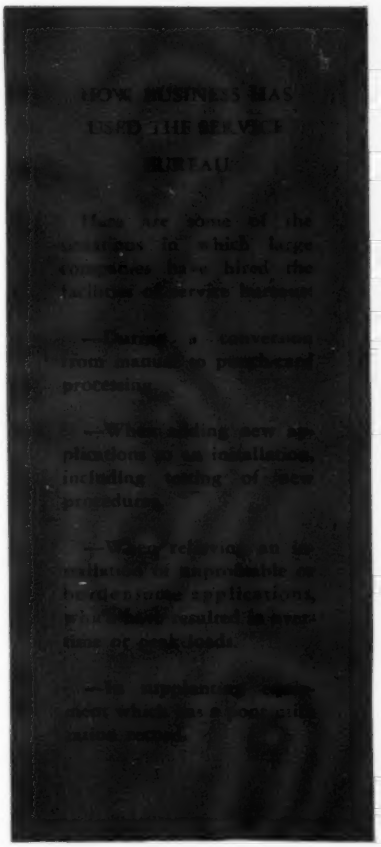
1. To pre-plan in detail every conversion step to determine the necessary equipment and personnel to accomplish the conversion within the required time period.
2. To rent equipment (key punches, chairs, tables, blackboards, etc.) for the scheduled conversion period.
3. To arrange with several service bureaus for a pool of personnel composed of:
   a) experienced key punch operators
   b) clerks.

Bureaus made responsible

We stipulated that these personnel were to be available on a day-to-day and week-to-week basis. The service bureaus were to be paid pre-set hourly rates for personnel actually used, with the outside organization taking the responsibility for providing a full staff for the operation at all times. Each bureau was to be responsible for maintaining its own quota.

Pre-planning was completed, temporary equipment delivered, and personnel supplied by the service bureaus. Two teams of temporary personnel were formed—a machine group (key punch operators and proofers), and a clerical group (editors and coders). Both groups were placed under the control of company personnel, with a company supervisor heading each group. (Since the conversion took place during the summer, the clerical team was composed mainly of college students on vacation.)

As the editors finished each small section of the account file, the edited source material was passed to the key punch operators for punching and verification. Then the editing group filed the punched cards and they were ready for order processing on a daily basis. The source data was available for reference and the switch-over from manual to machine processing for each small group of accounts was accomplished in



a matter of hours. Absent operators or clerks were replaced the same day by substitute personnel provided by the service bureaus.

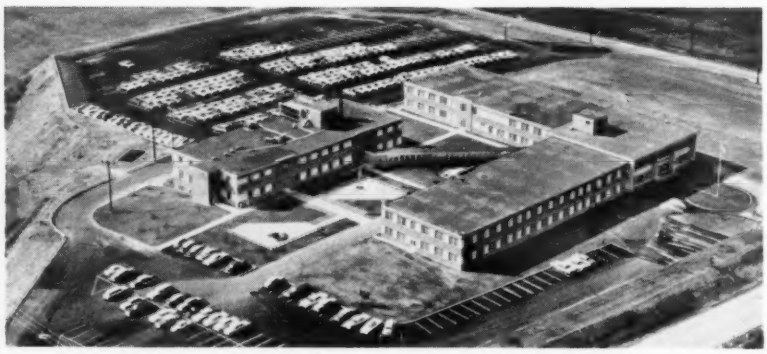
Though this conversion did not proceed without heartaches and headaches (none ever will), it was completed on schedule and the new system processed twice the number of orders in a single day that the company had ever handled before, just four weeks after conversion was started. While the cooperating service bureaus and the personnel they furnished played only a small part in this successful conversion, the problems of hiring costs, absenteeism and lateness, below-standard production and termination costs were largely eliminated and there was no adverse effect on permanent company personnel.

While this is only one instance of the many possible methods of utilizing service bureau facilities, I think it shows that our broadened concept of a service bureau (with proper planning and creative imagination) may be a highly successful answer to smooth and profitable paper work processing for your company.

Now that we've defined what a

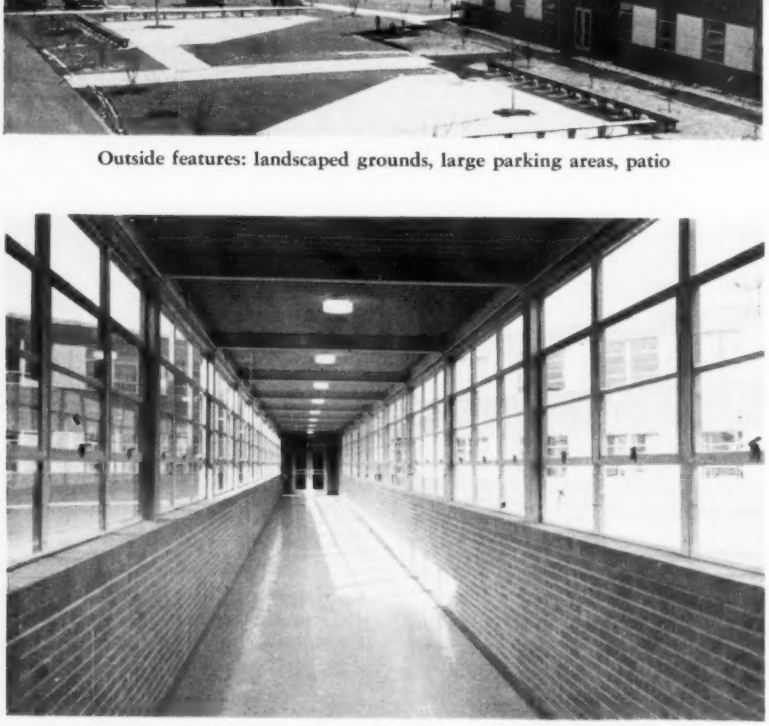
(*To page* 80)

Office built over coal mine combines economy, efficiency, attractiveness



Aerial view of Hagan shows intricate layout of new buildings

Outside features: landscaped grounds, large parking areas, patio



Long enclosed, airy walkway of handsome brick and glass forms connecting link between Headquarters and Research Center

New functional headquarters of Hagan Chemicals achieves sleek, efficient layout at low cost —

TEN MILES outside Pittsburgh's famed "Golden Triangle," on a rolling, 27-acre site, stand the new Headquarters Building and Research Center of Hagan Chemicals & Controls, Inc.

Situated on scenic, landscaped grounds that effectively disguise the fact that the site was formerly a coal mine, the new offices, which opened in June, 1958, represent a striking achievement in modern office design at extremely low cost.

Construction costs for the long, rambling two-story structures that form the Hagan buildings, for extensive landscaping, parking areas, and a unique sewage disposal were in the neighborhood of $1,750,000 — or less than $3,000 for each worker the buildings can accommodate. This figure includes leveling of the land—a major project at the outset since the site selected was located on an abandoned coal mine.

Economically designed and constructed, the buildings nonetheless present exteriors and interiors both functional and handsome. Exterior construction is of brick and decorative panels. Giant cut-stone pillars which rim the perimeter of the main entrance and floor-to-ceiling glass doors and windows at the main entrance area form the focal point of design and provide a distinctive contrast with the wood-paneled interiors and slate floor of the reception lobby.

The main building is an L-shaped structure containing 60,000 square feet of floor space housing executive offices, sales division offices, and purchasing, engineering design, accounting, and advertising departments.

Adjacent to it is the 33,000 square-foot Research Center, connected to the main office building by a long, enclosed corridor. The Center houses the

Work areas accent spaciousness, feature acoustical ceilings

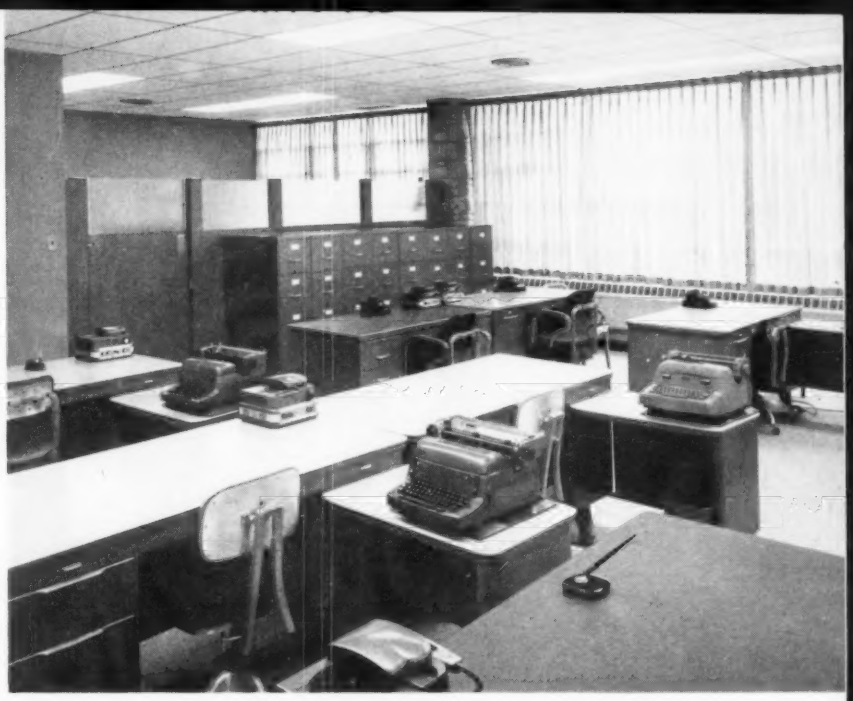
company's laboratory facilities and chemical research groups, as well as a well-stocked scientific library and a cafeteria which seats 200.

All of the departments in both buildings are situated to contribute to the most efficient possible work flow—an idea which it was impossible to achieve in Hagan's former building in downtown Pittsburgh. Continuing expansion of the company, which does its major business through its Calgon Division, had forced offices and departments to spread out haphazardly throughout the downtown building, taking space wherever space could be found.

It was the need for additional space as well as a more functional layout that inspired officials to consider a move "to the suburbs."

When officials finally decided to build the new offices on a site along the Penn-Lincoln Parkway West which the company already owned, they were faced with two main problems: How to construct a modern office building atop an abandoned coal mine; what effect the move would have on employees, since transportation facilities were limited.

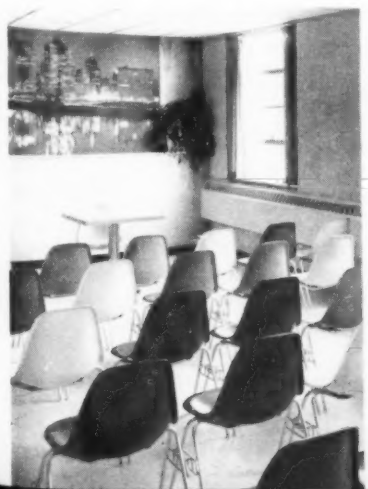
(*To page 72*)



Large windows encircling offices afford scenic view of countryside

Busy mail room is located on first floor of main building

Conference room, left, adjacent to cafeteria, doubles as small dining area



Once a person has been trained to "write" even quite lengthy material by talking into a machine, or dictating to a stenographer . . .

Why not "talk away" your heaviest paperwork burdens?

Dictating major "writing" projects—reports, programs, proposals—can increase executive output, and can, under proper guidance, even clarify executive writing—

by Benedict Kruse
General Manager, Frank Associates, Public Relations Consultants, Park Forest, Ill.

WOULD your company hire a typist who uses a two-finger, hunt-and-peck system?

Of course not. The touch method is a necessary office skill today.

Would your traffic manager stand by and watch a crew unload incoming shipments one box at a time?

If there is any volume at all, you can be sure there will be a conveyor or a fork lift truck somewhere on the scene.

Do the accountants and bookkeepers at your company add long columns of figures with pencil and scratch paper?

Today, this work is done on adding machines.

Just about any place you turn in a modern office or factory, you will find basic tools in use to make the output of workers easier and more productive. This principle is applied over a full range of operations covering everything from electronic computers to machines which scrub and wax the floors. Today, working time is the most valuable commodity purchased by most companies. It must be conserved.

In altogether too many cases, however, a foundation firmly built from constructive operational bases is topped by a wastefully archaic structure.

While we press continually to develop better, more efficient methods by which office and factory workers may do their jobs, virtually nothing is done to ease the work or increase the output of the executive.

This is a pretty strong charge. Before we examine it further, we should define what we have in mind:

This is *not* going to turn into a treatise on executive training or development. The shortage of qualified management people is a problem of everyday reality to most companies. Management training, executive development, personnel procurement — these are necessary ingredients in modern management. A good deal already has been done about educating executives to future responsibilities. Still more — much more — will be done in this field in the future.

In too many cases, however, our total effort in executive development boils down to taking our keenest, quickest minds; developing them to an extremely high degree — and then putting a governor on their output. Too often, the benefits realized from some of our finest executive minds are severely limited by the need to hold back their functioning to the speed of a pencil on paper. In terms of simple arithmetic, a mind capable of thinking at 200 to 250 words per minute is too-frequently held back to

. . . he will find, after experience, that he can accomplish a great deal more writing with less effort. Even novels have been dictated . . .

a rate of 20 or 25 words per minute — the top speed at which most people can write in longhand. In other words, because we have failed to teach many executives the physical skills of high speed expression, we may be realizing only 10 percent or so of their potential output in some key phases of their jobs.

Most executives actively envy the fellow who can pick up the microphone of his dictating machine or buzz for his secretary and blithely talk his way through complex writing chores. Almost everybody wishes he could "write" through high speed dictation. This, however, is one subject about which everybody talks and about which almost everybody can do something.

It has been proven beyond any reasonable doubt that almost anybody who can write effectively can learn to be more efficient by writing aloud. We propose to discuss both the values and techniques of fitting dictation skill into executive functions.

To start with let's go back a sentence or two and note the reference to dictating as "writing aloud." Before any executive can become proficient in writing by dictation, he must:

(1) Understand the basic need for writing at all.

(2) Learn to write competently by conventional methods.

More and more, the true measure of an executive and his performance lies in the written word. In many cases, written reports are the chief means by which management checks the activities of and evaluates supervisors and executives.

Written reports, either in the form of instructions to the company's own employees or as a means of communication with outside firms, often make up an important segment of an executive's job.

These are days for putting things in writing. The written word is an increasingly important challenge in the executive job. A large percentage of executives, as they are pressed with the need for putting more and more things into writing, have come to look on this phase of their jobs with a special sort of dread reserved for evils which are necessary but difficult to understand. The average executive will be the first one to tell you that he's not a writer. Yet, many executives are responsible for putting more words on paper than best-selling authors.

Today, then, both management as a whole and executives as individuals have large stakes in improving executive writing talents. For management, there is the obvious benefit of having more information about business operations in more digestible form. For the individual executive, there is the very frank situation that the better he is able to report on what he is doing, the more recognition he will get.

There is no doubt, then, that improving the writing ability of executives and supervisory personnel would be a good thing. The only real question lies in how to go about it. To look for a solution, you must first dig a little into the nature of the problem.

Check on many in executive positions today and you will find that they showed promise in either of two directions during school days.

(1) A leaning toward scientific or technical skills.

(2) A personality which marked them as potential salesmen.

In either case, the great probability is that a person with these characteristics regarded the English courses in his curriculum as sort of a necessary evil. It is also likely that not too much was said during his educational years about his inevitable future need for writing ability.

An extreme but, unfortunately, not uncommon illustration can be seen in the case of a 30-year-old project engineer employed by a leading Southern California missile manufacturer. In his college years, this young man and most of his contemporaries regarded liberal arts courses — English in particular — as worthless wastes of time. Looking back, he recalls studying

his college catalogues before entering his freshman year and betting a friend that he could go all the way through to graduation without bothering to take any work in English Composition. He won his bet, but began regretting it almost the day after graduation.

This young man, today, is a project leader in an important defense systems development program. He spends considerably more than half of his time writing proposals for and reports to prime contractors and government agencies. As it has turned out, his rapid rise within his company has put him in a position where his engineering training serves mostly as a background for broad administrative responsibilities. Today, his job centers around his ability to communicate. In advancing to this position, he has suffered long periods of anguish in developing on his own, writing abilities for which he could easily have had professional help had he foreseen the real nature of the business he was getting into.

This case points up another factor: The type of writing which provides the real test for today's executives is a long way from what has customarily been referred to as "business writing." In the traditional sense, business writing is usually thought of as letters and memos. The whole trick, so the wags used to say, was to find a secretary who was pretty sharp at this sort of thing. Then, you could just tell her what you wanted to say and she could put the letters together for you.

Today, however, business is too big and executive requirements are too demanding for anyone to count on being able to slip by in this way. The man in business — whether he be in research and development, sales, engineering, or almost any other department — must know how to express himself in writing.

It is true that no one expects a literary masterpiece from a businessman. But, the standards to which the businessman writes are more exacting than those faced by a novelist. He must, first of all, impart knowledge. But, he must do it in a way which will be meaningful to whoever must read and interpret this material as part of his own job.

He must be able to evaluate what he writes — putting the most important things first, but also keeping his whole subject in proper perspective.

Business communications difficult

Even for a man who has been a professional writer, business communication is hard work. In our own experience, for example, we have found that even writers with as much as ten years of active newspaper experience cannot step right into the field of business communications. Even where all the necessary writing skills are known to exist in advance, we find it takes months of training in how to evaluate subject matter and "slant" the material for business audiences.

What can be done about it?

The first thing which needs doing is for management people to quit throwing up their hands and calling the situation hopeless.

To be sure, writing talent is basically a "natural" ability. To become an outstanding writer, a person does need a certain inborn talent. However, there are other aspects to writing skill which people who are not professionals in this field frequently fail to take into account. To start with, let's agree that we do not necessarily wish to develop outstanding writers among business executives. All we want is to help them express themselves competently as part of their regular jobs. This is a degree of proficiency which can be achieved with practice. As a rule of thumb, anyone who has shown enough promise to rate executive attention within his company will have what it takes to develop himself to the point where he can write with facility and express himself coherently.

Among professional writers, it is well known that talent is not enough. Even with exceptional talent as a basis, it takes extensive practice and discipline to spell the difference between good potential and real skill. In this respect, proficiency in writing has much in common with mechanical dexterity. The more writing you do, the easier it will come to you and the better you will be at it. As with any other type of training, a writer must improve his reflexes and condition himself for better performance.

A generally accepted theory of instruction for young writers is to give them a standing assignment to write 1000 words every day. It doesn't matter too much what they are writing. The main thing is that they stick with it.

There is just one other key factor in the training of a competent writer. And this, too, is present in virtually every type of training program. That is, you need competent supervision. In other words, you should have someone available to correct, criticize and make continuing suggestions on how your writing can be improved. In some cases, you may not find the supervisory talent you need right within your own organization. But, in just about any location, there will always be competent help available.

The basic idea is to find someone who: (1) earns his living through the use of the English language; and (2) has the personality and ability to judge the work of others and convey criticism constructively. A good place to start looking would be your own public relations or advertising department. If your company is too small to have such a department, or if there is some reason why this arrangement won't work out, you might try either the English department of a local college or your hometown newspaper. It is a pretty sure thing that you will find

(*To page 62*)

One method of producing better writers: an assignment of 1000 words a day

How to develop an effective records retention schedule

First of all, know your company—the best programs are those tailor-made to fit the firm. Secondly, be sure that your top management team is solidly behind the idea—

by F. L. Sward

Facilities Section, Flight Propulsion Division, General Electric, Cincinnati, O.

IS YOUR wastebasket pretty full at the end of the day? No doubt it is, and although you might not realize it, you have evaluated every letter, document and paper in it for retention purposes.

When you throw a paper into your wastebasket you, at least subconsciously, go through a reasoning process something like this: "I won't need to refer to this paper again. It provides no legal protection to my company or to me. It is of no historical significance to us. Therefore, I shall throw it away."

This same kind of simple process can be applied to disposing of your company records. The savings in records storage costs and recovery of valuable floor space will more than repay the time and effort you expend in placing all your records on definite and clearly worded retention schedules. All you need is an organized and determined approach — and a bigger wastebasket.

Many suggested records retention schedules are available commercially but they should be studied carefully to see whether they are suitable for your organization. An analysis of a typical list of suggested retention periods shows that over fifty percent of the

records listed are evaluated as "permanent" or "optional". "Permanent" is a long, long time. It means "forever" or "until the paper falls apart". It is inconceivable that nearly half the records accumulated by a business organization are so valuable that they must be held "forever". "Optional" tells you nothing.

If you expect to obtain the maximum value from your schedules they should be tailor-made for your organization. No two companies generate exactly the same kinds of records or use them in the same ways or for precisely the same purposes, although, of course, there are many similarities in all enterprises. Then too, company policies vary widely and the nature of one company's business may be entirely foreign to that of another. Indeed, there can well be as many differences between two divisions of a very large corporation as there are between two entirely separate companies. All of these factors can and should result in variations in the length of time that different companies may wish to retain the same kinds of records.

Before embarking upon a program to establish retention periods for your records, it is absolutely essential that top management support be obtained. This is necessary for two very important reasons. First, the impetus of your work must come from the top down. Otherwise you will be put off again and again on one pretext or another, by supervisors all along the line. The problem is easily postponed for it is not a pressing one except to the individual who has to find storage room for the ever expanding accumulation of paperwork. Second, you will need the active participation of some members of top management, particularly your legal people, because company policy and the requirements of the law are very important considerations in evaluating records.

On the other hand, the "action" phase of your program must start at the bottom of the organization where the majority of records are generated. It must start at the file cabinets where the records are housed and with the people who are actually handling and using the records in their daily work. You cannot sit at a desk with a list of your company's forms and a procedures manual and expect to produce any meaningful retention periods. You must build your schedules upon the records as they *actually* exist, not upon the way they are supposed to exist or upon the way you think they exist.

Before discussing the mechanics of a program, let us consider the basic reasons for retaining records. These are three: (1) for their reference value, (2) for their legal value, and (3) for their historical value. Every record possesses one or more of these values. If it doesn't it should be in the bonfire or, more likely, should never have been generated in the first place.

Checking record's reference value

The reference value of a record is very easy to determine. Just count the references to it. For instance, let us say you have a set of inter-office correspondence files divided chronologically by year. You refer to your current files daily. Occasionally you have to go into last year's files. Once or twice within the last six months you have gone into files of the previous year. But you have had no reference to your older files for over a year. Obviously the reference value of these files is negligible after they are two years old and nil after three years. Therefore, from strictly a reference value standpoint, these files are disposable after three years — perhaps after two years.

The legal value of records is a bit more difficult to ascertain and here you will have to rely quite heavily for assistance on legal advice and counsel. Legal requirements involve such considerations as Federal, state and local statutes of limitations pertaining to matters recorded in your files, and Federal, state and local laws and regulations prescribing that certain kinds of records be created and maintained for certain periods. If your company is doing work for the Federal Government there are contractual obligations with respect to records which you must fulfill. Contractual clauses relating to records are, of necessity, quite broadly worded and frequently require a legal opinion when an attempt is made to apply them to a specific record. Finally, although certain records may not be vital from a legal standpoint, they may be useful in the event your company becomes involved in litigation. Only your legal people can advise you on these matters and this is an area where company policy is an important consideration.

The historical value of records is also largely a matter of company policy. Records possessing this value are those which document how things were done, why they were done, and what the results were. Records of research work would also be of historical significance. Charters to do business, ownership records, deeds and titles, copyrights and patents, minutes of directors' meetings and similar documents are, in the end, historical records even though they certainly possess a vital legal value too. Certain financial records would have important historical significance. In order to be truly "permanent" a record must be historical, although all historical records are not necessarily "permanent". The key question in evaluating a record from an historical standpoint is: How detailed a history does my company want to keep? In any event, the volume of historical records should be relatively small.

To be "disposable" a record does not have to be completely useless. It should be destroyed when the value of the information it possesses no longer warrants the expense of maintaining and servicing it. Sometimes a calculated risk is well worth taking. Weighing the known costs of maintaining a record against the purely speculative costs which might be incurred if the record were needed and not available, can lead to a decision in favor of a short retention period. Money spent to maintain records could, in some instances, be put to more productive use, resulting in a greater overall gain to your company in the long run.

The mechanics of producing a records retention schedule can be broken down into four major steps:

1. Gathering information necessary to evaluate each record.
2. Evaluating each record and recommending a retention period for it.
3. Obtaining necessary management approvals.
4. Publishing and distributing the resulting schedules for the guidance of records custodians.

The first step should be taken by actually inventorying the records, drawer by drawer, cabinet by cabinet, of each organizational element of the company and by talking to the people who work with each group of records. Here are some suggested bits of information you will want to pick up:

(a) The *organizational component* having custody of the record.

(b) The *name of the record.* Be careful here, for in a large organization different records are likely to be known by the same name and, conversely, the

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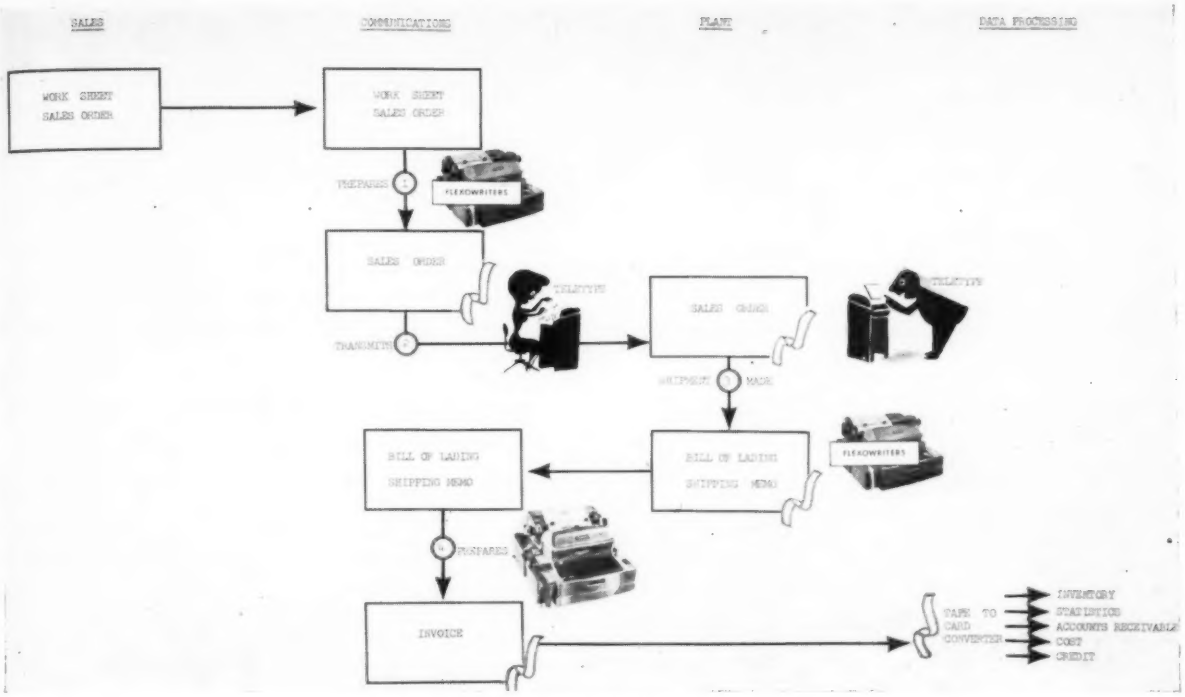


Flow chart of Seagram order-billing I.D.P. operations

"Total systems" approach to integrated data processing pays off for Seagram

Completely integrated order-billing cycle not only gives immediate results in increased efficiency, lower costs, but also gives company experience for other applications—

by Joseph C. Blunt
Assistant Controller, Joseph E. Seagram & Sons, Inc., New York

HERE AT SEAGRAM, we feel that the unique feature of our integrated data processing program is its completeness. To this end we have sacrificed neither economy, flexibility nor workability. Rather, we think that the total systems approach to our order-billing problem has paid off handsomely in results.

The complete order-billing cycle — from order preparation through plant production and shipping, accounting and statistical functions — is totally integrated by use of tape reading/writing equipment. Document preparation in all of these functions has been made "automatic" in ranges varying from 60 percent to 100 percent.

The experience and knowledge we obtained as a result of "getting our feet wet" in integrated data processing are immeasurable. We feel that it has opened up many other areas for systems work which otherwise might not have been possible. Some of the more significant results obtained from our total program are as follows:

A. Elements of mystery and confusion historically surround our order-billing function. With automation it has been reduced to a simple, straightforward and easily followed standard process.

B. Monthly accounting closings have been accelerated 50 percent.

C. Errors in coding and otherwise have been substantially reduced.

D. Quicker and better analysis of sales and cost is available to management.

E. Yearly savings have been significant.

Our integrated data processing system, in operation for over a year, provides the order-billing and related services for all of our beverage affiliates including Seagram, Calvert, Four Roses, Hunter, Kessler, Browne-Vintners and General Wine and Spirits. All operations are centralized in our main headquarters through a closely-knit team effort program between our sales companies, production division, office management, Accounting Department and Data Processing Department. All control work is handled by the Order-Billing Department; tape handling and document preparation is handled by our Communications Center and report work by the Data Processing Department.

The communications link in our program is a teletype network connecting all major U. S. plants and sales offices, plus our Montreal, Canada, plant. This network consists of a combination private wire, Western Union and TWX set-up, controlled by a central control station at headquarters — 375 Park

Avenue, New York City. Also, at headquarters — and a vital point of our program — is our Data Processing Center, which incorporates use of conventional tabulating and data processing electronic equipment, as well as an IBM 650 Electronic Computer.

The components of the Seagram total integrated data processing system are as follows:

A. Preparation of sales orders on Flexowriters using customer and item master tapes (80 percent automatic).

B. Transmission of orders to plants and offices via 028 teletype equipment. Plants receive hard copy as well as tape (100 percent automatic — by-product of A).

C. Preparation of shipping papers at plants on Flexowriters using order tape received (60 percent-80 percent automatic — by-product of B.)

D. Invoice preparation in New York on Model C computers using tapes received from plants (90 percent automatic — by-product of C).

E. Conversion of by-product tapes to cards (100 percent automatic —by-product of D) producing individual detail and total cards for the following computer elements of this program:

1. Inventory Accounting
2. Sales Statistics and Analysis
3. Accounts Receivable
4. Cost Accounting
5. Tax Accounting
6. Credit

Since the scope of our sales operations involves shipments from domestic plants, domestic warehouses and foreign imports, our operation of necessity must be flexible. As a result, we have grown into four distinct operations — each similar in its purpose and in its utilization of the principles of integrated data processing, yet different in its application. The four operations are as follows:

1. Order — Shipping — Billing — Tab conversion
2. Order-Billing — Tab conversion
3. Billing — Tab conversion
4. Pre-Billing — Shipping — Tab conversion

To start at the beginning, the assignment of this project was made in the summer of 1956. A general sketch of what was thought to be a workable integrated data processing system was given to Jack Rooney, senior analyst, and his assistant, Larry Walsh. Working from this rough plan and with the aid of Standard Register and Commercial Controls Corporation, the "total" system was developed and engineered to its beginning in April, 1958, with our Lawrenceburg, Indiana operations.

The first six months of effort in 1956 was spent in a complete survey of the present systems of all of our companies, including field as well as New York locations and encompassing all functional components revolving around the complete cycle of order and billing. Sales company procedures were studied, as well as production, traffic, accounting, credit and all others which, in any way, were affected directly or indirectly by the cycle. A number of our customers were interviewed with respect to their requirements. This work revealed a great number of duplications and inconsistencies in the paperwork mill between companies and locations. Basically, however, it revealed common elements and requirements adaptable to automation.

Other firms' programs checked

The following six months were spent in developing the basic ideas of a new program and researching equipment which could, in our opinion, best perform the total assignment. A number of firms which had a variety of automation programs involving order-billing were visited. At that time the "ideal" equipment was not on the market. However, we were resolute in sticking to our original general plan . . . to have no interruption of the "integration" by the insertion of a manual operation. We felt that the five-channel common language coded tape must carry us from the order itself to the money in the bank without a break. Specifications were soon available on what we were seeking in equipment, and plans were made accordingly.

The next four months involved a complete study of all documents and reports relating to the problem. This included orders, invoices, bills-of-lading, shipping memos, government forms, statistical reports and plant releases for all companies. This study resulted in a proposal to combine a number of forms, eliminate others and arrangement of the information on all forms to fit a standard programming throughout. This was considered to be a vital part of the program.

At this point, a presentation was made to the sales, production and accounting executives to obtain their approval of the proposed system. A number of changes in the work flow were proposed; some would mean organization changes. These changes, required to produce the most workable system, necessitated:

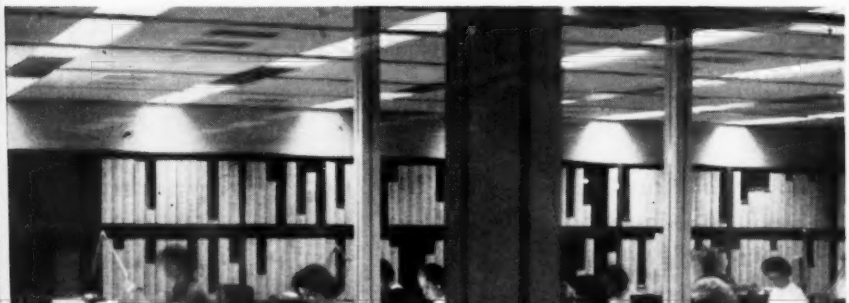
That all sales orders be prepared centrally from worksheets prepared in the field (to take advantage of automation most economically).

That all sales orders be routed around credit on an "exception" basis (to speed flow).

That work assignments at the plants between Traffic and Shipping Departments be revised (shipping memos and bills-of-lading were combined).

That order handling functions in National sales offices be combined

(*To page* 85)



Data processing center at Joseph E. Seagram & Sons

All office furniture shown from Globe-Wernicke.

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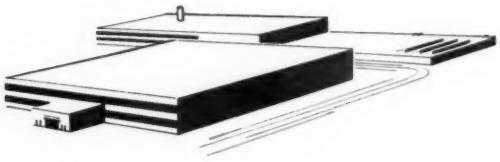

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Of the 32 American industrial corporations enjoying annual sales of one billion dollars or more, 27 bought MAC control panels and wires during 1958. More than 95% of their purchases were repeat orders.

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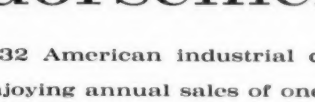


See us at booths 63 and 64
NMAA Conference — St. Louis
June 24, 25 and 26

Use Readers' Inquiry Coupon on Page 88

IBM introduces complete line of magnetic ink character sensing equipment for banks

INTERNATIONAL Business Machines Corp. early last month demonstrated a new line of electronic equipment that can "read" magnetic ink characters imprinted on paper checks, and transmit the information directly into data processing systems. The character sensing equipment was exhibited at the IBM Product Development Laboratory, Poughkeepsie, N. Y., to the press and more than 500 bankers.

The new line, which is known as Series 1200 Character Sensing Equipment, consists of four main units: a Proof Inscriber; a Sorter-Reader; a Sorter-Reader Control; and a Utility Inscriber.

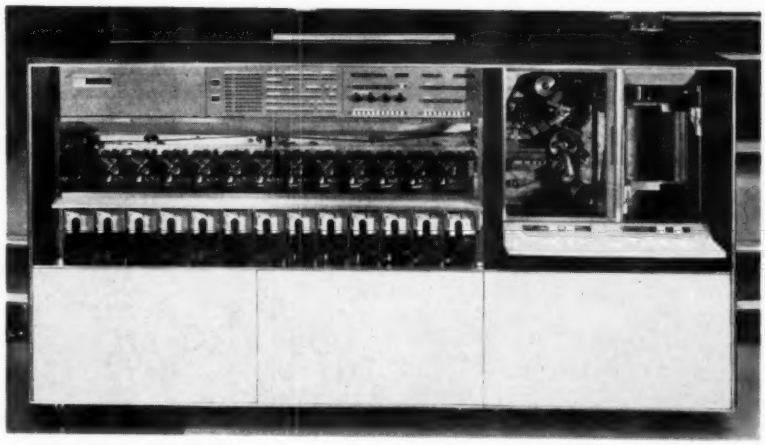
Since many banks have already installed computers for use in day-to-day banking transactions, the great lag in banking "automation," according to IBM, has occurred in the initial processing of checks, deposit slips, and other documents, which must be completed before information can be fed into machine accounting systems and computers. Now, according to Francis G. Rodgers, head of bank marketing for IBM, new sorting and handling equipment is "closing this gap."

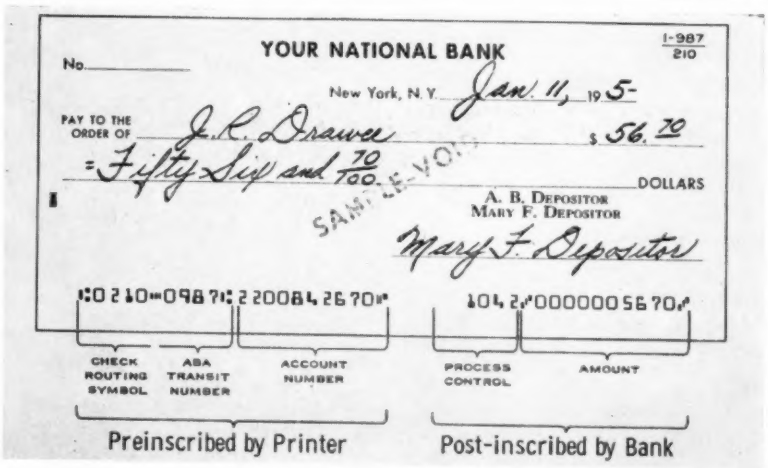
Stressing that the new IBM machines are not computers, Rodgers said:

"Their function is to read and sort and to develop information which can be computed and processed. The computing part of electronic banking is already very much of a reality. The groundwork in this area has already been laid by the many banks using computers."

The new units all employ as a common language the Magnetic Ink Character Recognition system developed and approved by the American Bankers Association. A special set of Arabic numerals has been agreed on by the banking group and all leading manu-

(*To page* 76)





Top: Sorter-Reader unit; center: inscribed check showing how magnetic ink characters are used; bottom: complete 1200 series installation.

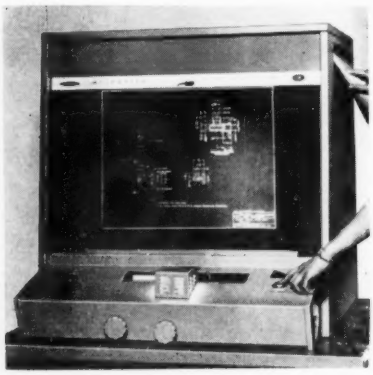
New for the office

▼ Projector stand A-1

All-steel, portable stand for movie and slide projectors is available in baked enamel finish of tan or gray. The 41-inch-high stand is mounted on casters, and features storage space for machine accessories. *Smith System Mfg. Co., 212 Ontario St. S.E., Minneapolis 14.*

▶ Executive desk A-2

Executive desk for home or office measures 57 by 24 inches. All exposed surfaces are made of walnut or walnut veneer. *Cottonsmith Furniture Manufacturing Co., Inc., Winston-Salem, N. C.*



▲ Microfilm reader-printer A-3

"Thermo Fax" Twenty-Nine microfilm reader-printer can produce 18- by 24-inch, or 12- by 18-inch copies in a matter of seconds. The combination reader-printer stresses simplicity of operation, and will accommodate 35mm microfilm in aperture cards or tabulating card sizes. Price, $919.00. *Minnesota Mining and Manufacturing Co., 900 Bush Ave., St. Paul 6, Minnesota.*

▼ Dictation machine A-4

Portable dictation machine weighs 4½ pounds, and will fit in a briefcase. All controls, including reverse and playback, are built into the microphone. The Coronet machine utilizes a magnetic Mylar re-usable belt as the recording medium. Unit is battery powered, but a converter for A.C. is available for office or home use. *Comptometer Corp., 1735 N. Paulina St., Chicago 22.*

◀ Adding machine A-5

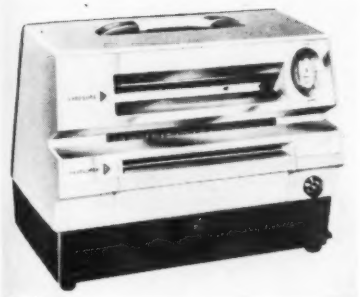
Model 541-30 three-position shuttle-carriage adding machine has grand total register, and split motor bars for vertical and horizontal postings. The machine may also be used as a statement and billing machine using numeric codes for commodity description. *Addo-x Inc., 300 Park Ave., New York 22.*

▲ Forms burster A-6

Forms burster is equipped with a new high efficiency trimmer that trims up to 12 plies of fastened control punched forms within 1/64 inch tolerance. The unit will trim and burst continuous forms 3 to 17 inches in length at a rate of 90 feet per minute. *UARCO Inc., 7902 S. Ashland Ave., Chicago 20.*

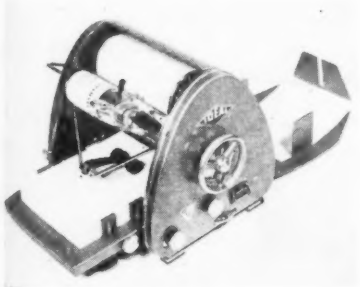
▲ Time meter A-7

Elapsed time meter is designed to record the actual time, in hours, that an electric, electronic punched card or data processing machine is used. It may also be used with key-driven types of data processing machinery. *Engler Instrument Co., Jersey City 5, N. J.*



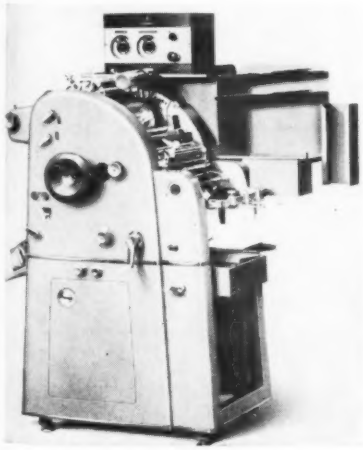
▲ **Photocopier** **B-1**

Contouramatic Mark II, an automatic single-unit photocopier, has sealed vinyl bags to contain processing fluid. The unit makes black and white copies up to 9 inches wide on card stock, colored papers, offset plates etc., and will reproduce marks made by colored pencils, ballpoint pens, etc. *F. G. Ludwig, Inc.,* 151 *Coulter Place, Old Saybrook, Conn.*



▲ **Stencil duplicator** **B-2**

Electric silk screen process stencil duplicator features cartridge inking, automatic ink distribution, and speeds adjustable from 40 to 140 copies per minute. Postcard- to legal-size papers may be accommodated without additional attrachments. *American Office Equipment Co., 24 East 21st St., New York 10.*



▼ **Telephone** **B-3**

New "Executive Telephone" allows a number of pre-selected phones to be signalled directly by push-button. Unit can cut in on busy phones, if caller wishes; and will immediately seize connection when line is free if caller does not wish to break in on busy line. *Tele-Norm Corp., 55 W. 42nd St., New York 36.*

▼ **Adding machine** **B-4**

Fully-electric, model 811 credit balance adding machine has 11-column add and 12-column total capacity. Other features include multiplication key with automatic stepover and condensed keyboard with three zero keys and non-print device. *General-Gilbert Corp.,* 150 *Broadway, New York* 38.

◀ **Offset duplicator** **B-5**

High speed, automated, offset duplicator accommodates paper sizes from 3 by 5 to 11 by 17 inches. Designed for repetitive duplicating, the operating cycle of the machine is regulated by a program control unit, which insures production of exact number of copies indicated by operator before run, for as many runs as required. *A. B. Dick Co., 5700 West Touhy, Chicago, Ill.*

▲ **IDP machine** **B-6**

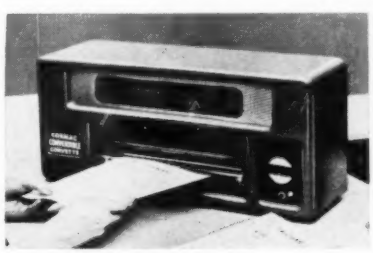
The Synchro-Monroe President, integrated data processing machine, simultaneously punches either tape or cards as it carries on regular accounting jobs. Removable encoder board allows choice of a 5, 6, 7, or 8-channel tape, or direct connection to an IBM 024-card punch. *Monroe Calculating Machine Co., Inc., Orange, N. J.*

▲ **Bookkeeping machine** **B-7**

Automatic functions of this desk model bookkeeping machine include: totaling sub-totaling, accumulation of items posted, adding, subtracting, and dating. The machine is designed to modernize bookkeeping operations ranging from accounts receivable and payable, to billing and report writing. *Burroughs Corp., Detroit 32, Mich.*

▼ **Photocopier** **B-8**

"Convertible Corvette" 2-task photo copy machine incorporates the single-copy transfer process with an unlimited copy method. It can produce one or many black and white copies, written printed, or typed. Price, $279.00. *Cormac Photocopy Corp., 80 Fifth Ave., New York, N. Y.*



▲ **Card file** C-1

Card Caddy with alphabetical guides serves as desk-top file for business cards, and is small enough to fit into the top desk drawer. Tray is gold-tone aluminum, available in 750 or 1000 card capacity size. Price, $2.49 and $2.98. *The Hahn Co., Box 64532, Los Angeles 64, Cal.*

▲ **Modular desk** C-2

Modular desk arrangement provides a work unit with convenient facilities work unit with convenient facilities and storage space. Aristocrat unit is Surf Green in color, with gray Textolite drawer and back panel. *Remington Rand Div. of Sperry Rand Corp., 315 Fourth Ave., New York 10.*

▼ **Form printer** C-3

An extension of the manufacturer's Parallel Entry Data Printer is this read-out form printer with an automatic form ejector. The machine records automatic check-out data, quality control reports, inspection records, etc. *Clary Corporation, 408 Junipero St., San Gabriel, Cal.*

▼ **Document cases** C-4

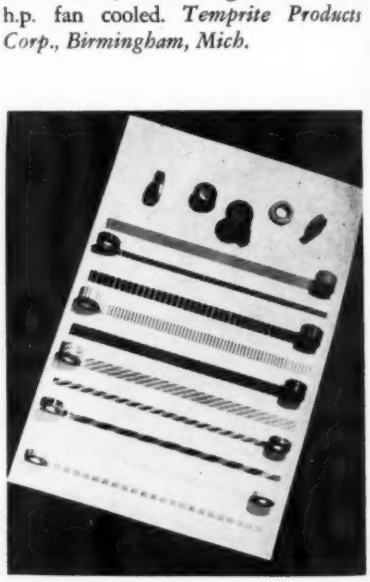
Metal edge foil document cases form safeguard against flame or water damage. Laminated inside and out with aluminum foil the cases are available with hinged lids or fit-down tops. *Hollinger Corp.,* 3810 *South Four Mill Run Drive, Arlington, Va.*

◀ **Storage cabinet** C-5

Functional storage cabinet offers 35 cubic feet of shelf and drawer space. Unit is constructed of satin finish steel tubing and maple veneer panels, and is mounted on ball bearing swivel casters. Four alternative interior combinations are available because cabinet has adjustable shelving and paritions. *Fleetwood Furniture Co., Zeeland, Mich.*

▲ **Water cooler** C-6

Self - contained electric water cooler, "Wall-Temp" model WT-13, mounts flush to the wall and off the floor. Finish is in mist gray with stainless steel drain basin; condensing unit is 1/5 h.p. fan cooled. *Temprite Products Corp., Birmingham, Mich.*



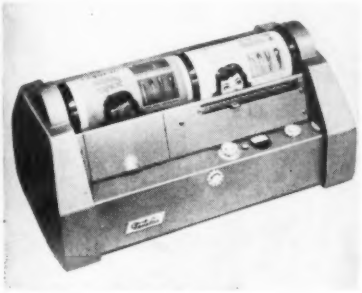
▲ **Patterned tape** C-7

A line of pressure sensitive tapes are available in a variety of colors and patterns as an aid to graphic chart and graph procedures. Tape width runs from 1/64 to 2 inches in solid colors, 1/32 to 2 inches in pattern. *Labelon Tape Co., Inc., 450 Atlantic Ave., Rochester 9, N. Y.*

For further information, use Readers' Inquiry Coupon on page 88.

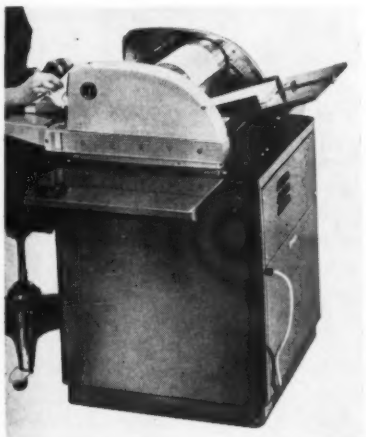
▼ Electronic stencil machine D-1

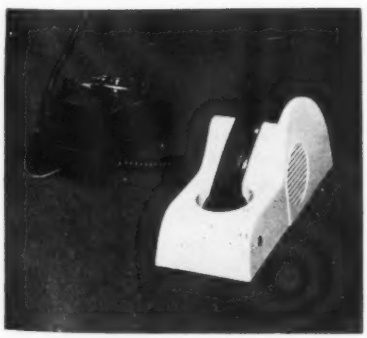
Gestefax electronic machine is designed to reproduce photographs, forms, letters, etc., directly on a mimeo stencil. The stencil may then be used to make faithful copies on regular stencil duplicating equipment. *Gestetner Duplicating Corp., 216 Lake Ave., Yonkers, New York.*

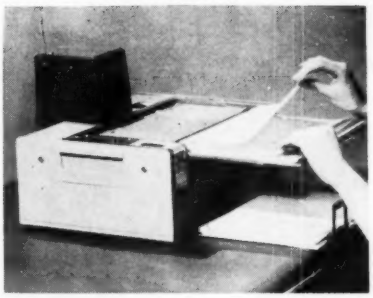


▼ Duplicating machine D-2

Seated-Posture, direct process duplicating machine, handles forms from 3 by 5 to 14 by 14 inches at speeds up to 120 copies per minute. Machine also features "no pour" fluid supply pumped directly from the container in which it is received. *Ditto, Inc., 6800 McCormick Rd., Chicago 45.*

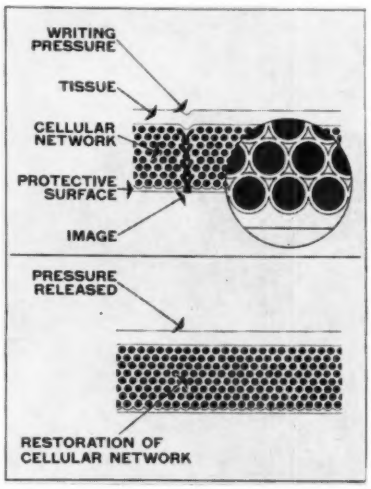






▲ Microfilmer D-3

Recordak Portable Microfilmer weighs 24 pounds with a film capacity of 100 feet. Two rolls of film may be exposed simultaneously and audible-visible signals assure operators of proper machine operation. *Recordak Corp.,* 415 *Madison Ave., New York* 17.



▲ Duplicating paper D-4

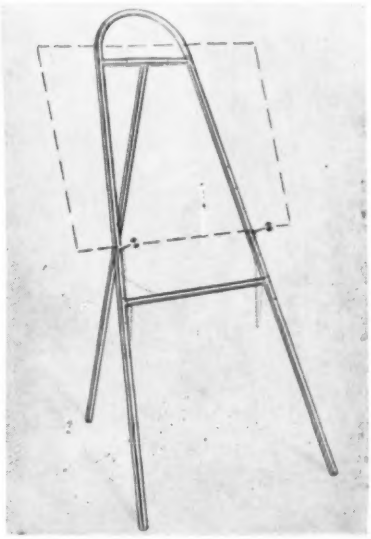
New duplicating paper utilizes direct-ink transfer principles to produce "non-smudge" duplicates. Pressure of type-bar, or writing instrument, releases liquid ink from cellular structure and transfers it to copy paper. Ink from other sections of "Plastisol" sheet then flows to replenish empty cells. *Columbia Ribbon & Carbon Mfg. Co., Glen Cove, N. Y.*

◀ Telephone device D-5

Magna-phone device allows two-way telephone conversations without holding the phone. Portable, battery powered unit also features an easily adjusted volume control. Operation consists of placing the telephone receiver in Magna-phone cradle; allows group of people to participate in telephone conversations. Price, $59.50. *Kay-Townes Mfg. Co., Box 593, Rome, Georgia.*

▼ Display easel D-6

Featherweight office display easel is designed to hold display cards as narrow as 16 inches. The unit is 53 inches high, made of 1-inch heavy duty aluminum tubing, heliarc-welded. Supporting stainless steel pegs are secured to front legs by safety chains. *Metal Products Engineering, Inc.,* 4002 *Long Beach Ave., Los Angeles* 58.

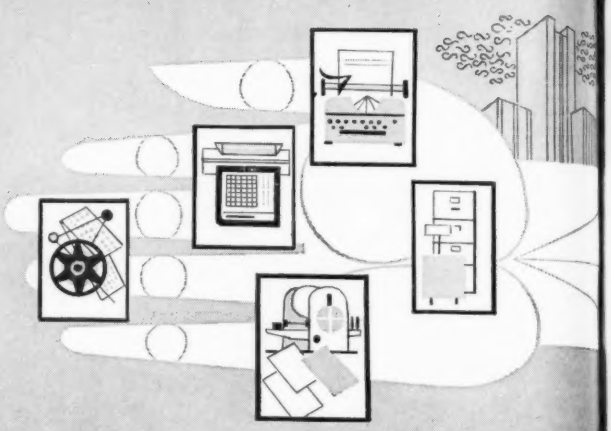


▼ Floor machine D-7

Model 16E Silent Huntington floor machine features new type gear reducer with steel gears; micro-switch handle; and 50 feet of three-wire cable. One-half horsepower motor rests directly over brush for operating balance. Unit comes equipped with polish and scrub brushes. *Huntington Laboratories Inc., Huntington, Indiana.*

A Monthly Feature

Tools of the Office



Mailroom Equipment

by Mary D. Lyons

THE OFFICE "tools" discussed in this month's issue fall under the category of "mailroom equipment" even though many of the items mentioned are frequently found in other departments, especially addressing and collating devices which are often situated in stenographic and duplicating areas. However, all the equipment discussed here plays an integral role in the mailing performance and is thus a part of the mailroom—if not in body than at least in purpose.

In spite of its somewhat factory-like appearance, the office mailroom is the veritable backbone of every business, essential to its success—and survival.

The mailroom and its adjoining areas are usually characterized by intense activity and harassed expressions; in spite of careful systematization, the mailing process, by its very nature, must always involve countless crises and emergencies which arise even in everyday routine operations.

And the people who work in the mailroom might be considered the unsung heroes of their trade, for although history has paid homage to mail *carriers* throughout the centuries, very little appreciation has ever been proclaimed for the men and women behind the scenes (in the mailroom).

Much written praise has been given the drivers and riders of the Overland Stage and Pony Express who reportedly, day and night, summer and winter, over dusty plains and dangerous mountain trails, and frequently in the midst of hostile Indians, managed to "get the mail through."

And it was as early as 500 B.C. that Herodotus wrote his famous, "Neither snow nor rain nor heat nor gloom of night stays these couriers from the swift completion of their appointed rounds," in honor of mail carriers, and such tribute has been carried through to modern times.

Unfortunately, the people who address, collate, sort, stack, fold, seal, weigh, and stamp have never received any such eloquent commendations.

Luckily, however, the manufacturers of office equipment have developed a variety of machines and devices which succeed in easing a good deal of the inevitable mailroom pressure and which serve as great aids to the vital performance of mailing.

Addressing equipment

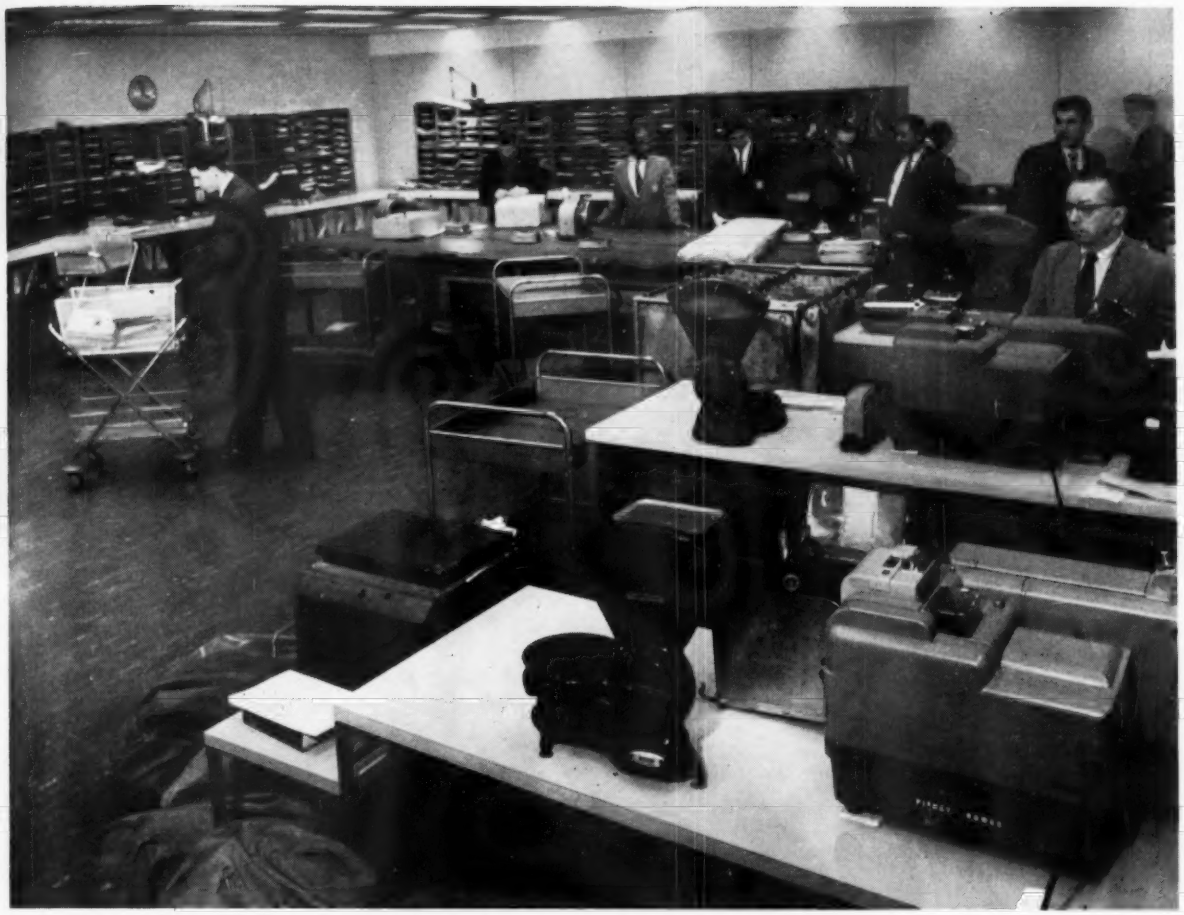
Addressing equipment is the first type of mailroom equipment to be discussed in this section. The most familiar types of addressing apparatus "print" addresses from embossed metal plates, stencils, or spirit masters. The masters for the last two types may be prepared in individual form or in strips or rolls.

Many systems have a form of coding so that classes of addressees may be withdrawn from master files for selective mailings. Some machines are capable of selecting addressees automatically; however, in other types, the codes merely make possible the identification of individual addressees in a particular category or group by the operator as he or she comes to them.

Such units, unfortunately, can only be used with addressees contacted regularly enough to warrant the preparation of an address plate or stencil. A great number of mailing pieces must still be individually addressed.

There are several obvious methods by which addressing can be simplified. Window envelopes, for instance, are a great boon to mailing efficiency since they not only reduce the addressing problem, but also eliminate the possibility of sending mail in the wrong envelope. Punched card postcards are a big help too since they eliminate the inserting process. They are practical, however, only in companies where other operations are also handled by punched card equipment.

More interesting and complex processes in use today include an adaptation of the photo-electric reproduction method known as facsimile, and of an "electrostatic" method in which an optical system projects an address onto a label in such a manner as to create an electrical charge; the charged characters and numerals attract oppositely charged ink in the form of a spray.



Behind-the-scenes personnel go about their tasks in well-equipped mailroom at Joseph E. Seagram & Sons, Inc., New York.

The latter method, not dissimilar to the xerographic copying process, is potentially capable of operating at speeds of thousands of lines a minute. (More detailed descriptions of the facsimile and xerographic processes will be found in the "Tools of the Office" section of the March, 1959 issue of *Office Management.*)

Integrated data processing systems employ both these methods, and names and addresses themselves may be prepared automatically from such "common language" inputs as punched cards and punched tape. However, regardless of how the address cards or tapes are prepared, the fact that the processes can actually "read" the printed material on them means that the addressing equipment can be integrated into a system under automatic control.

Embossed plates may also be prepared automatically by the use of graphotypes controlled by punched tape; while spirit masters and stencils may be created by one of the various forms of automatic typing.

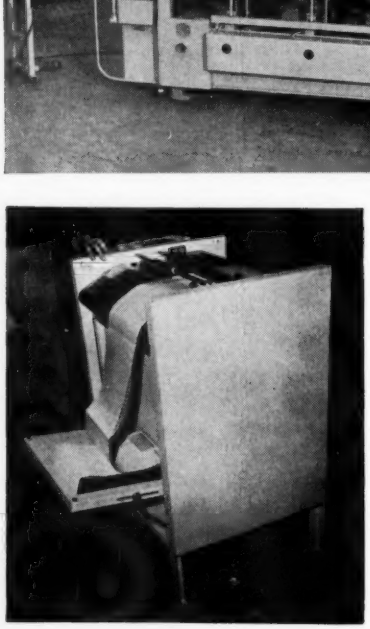
Several machines not only address but also print the entire letter including the date, letterhead, and signature. Thus the complete letter can be prepared and addressed in one run through the machine. Other machines incorporate accounting functions into the addressing process. Their ability to punch and imprint cards, accumulate totals, and perform numbering and sorting operations far surpasses human efficiency in both speed and accuracy.

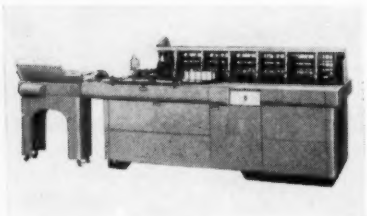
There are simple manual devices used for addressing too. Hand stamps used for addressing cartons and packages are of great aid in the mailroom as are hand-held addressing devices which contain spirit master rolls holding a list of names and addresses. The variety of addressing equipment is, of course, considerable, and it varies in degree from highly complex types of machinery to simple hand devices.

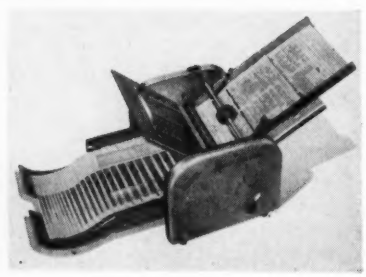
Collators, like addressing equipment, are often situated outside the mailroom; but they too play an important role in the mailing process.

The simplest type of collating device is a rack in which stacks of pages may be placed in sequence so that they may be gathered and arranged into individual sets. More advanced models involve the use of bins. The pages are collated from the bins (one page from each bin) to make complete sets. In cases where a feeding mechanism is provided from each bin, a simple form of mechanical collation can exist. This is achieved through a type of arm which moves in and out of each bin taking the top sheet from the stack so that it may be placed in proper sequence with sheets from the other bins. The series of arms so used are operated mechanically so that they are coordinated and may be controlled easily by the operator. This type of collator may use foot control, manual power, or operate electrically.

In other collators, the stacks are arranged in such a way that as the top sheets are removed, they are gathered mechanically, as by riding on a moving belt. This method allows many types of arrangements. For instance, in some







cases, the stacks are placed vertically while others are set in a horizontal sequence. Some collators carry the stacks in pockets which are mounted to rotate either vertically or horizontally.

While friction feeds are used in a great many collating machines, there are others which use a suction type, or vacuum feed. The more expensive machines offer a variety of safety devices to prevent misfeeding. Some measure the thickness of pages gathered from each stack, and should double loading occur, the machine stops and a warning signal is given. Others are equipped with photoelectric cells scanning each station in order to stop the machine should a blank page appear in a stack. A large variety of accessories is offered with the more complex machines; among these are counting, folding, stitching, stapling, and offset stacking facilities.

Folding and inserting machines

Folding machines, either manually or electrically operated, can make a variety of standard folds. The desired fold is determined by making a simple adjustment on the machine.

Inserting machines gather materials and insert them into envelopes. The simplest machines insert only one item, but larger machines may gather enclosures from a number of stations, inserting complete sets.

Mailing equipment illustrated at left is, top to bottom, Didde-Glaser's "Speed-Klect" collator; Weber Marking Systems addressing machine; Elliott's Model 1250 Addresser; Bell & Howell Phillipsburg Inserter which gathers, opens flap, seals, prints indicia, counts, and stacks; Martin-Yale's "Premier Auto-Folder" with new automatic conveyor-stacker.

More advanced equipment in this category folds the material, gathers it and inserts it; postage metering facilities are also sometimes included, as well as sealing and stacking features. These machines can carry out the complete mailing operation once the original material has been prepared and addressed.

Opening and sealing machines

The primary function of an envelope opening machine consists of trimming a small edge off one side of the envelope. These machines may be operated either manually or electrically; the electric units, which have become increasingly popular, are able to open an enormous amount of envelopes in a very short time. Usually, the amount of material trimmed off can be regulated by a simple adjustment to the machine. In order to avoid cutting into material contained inside the envelopes, a jogging device can be used to shake all material to the bottom of the envelopes.

Sealing equipment is usually relatively uncomplicated as it merely moistens the envelope flap and then moves the envelope between rollers to press it closed. Some sealing machines can also apply postage stamps.

More elaborate machines are electrically operated, and sealing features are often combined with postage printing and other mailing facilities.

Postage metering machines

Postage metering equipment prints postage directly onto envelopes or onto postage labels or strips which are to be affixed to mailing pieces. Since the postage so printed is equivalent in amount to U. S. Government stamps of the same value, its use is controlled by strict government regulation.

The total postage for a unit is purchased in advance at the post office, and the amount paid for is set into a locked meter in the machine. As postage is printed, its value is subtracted from the amount in the meter. To facilitate purchasing, the meters in all but the smallest machines are made detachable for convenience in taking them to the post office. Besides printing the postage, such machines also print a dated postmark and, if desired, some form of postmark advertising.

The most economical of these machines for a small office are those which

are operated manually. Larger models may be equipped with automatic loading features; and postage metering facilities may be included in machines which fold, gather, seal, insert, and stack mail all in one operation.

Some interesting news in the postal meter field (which was reported previously in the March, 1959, issue of *Office Management)* is the fact that, following a recent court decision, Pitney-Bowes, Inc., of Stamford, Conn. is now giving licenses to use its postage meter patents to any appropriate concerns which have been qualified by the Post Office Department.

According to Walter H. Wheeler, president of Pitney-Bowes, the licenses will be royalty-free for all presently existing postage meter patents and applications, whereas a reasonable royalty will be necessary for licenses to use patents which result from applications filed within the next five years, and also for certain technical information related to Pitney-Bowes' manufacturing and servicing operations.

This new development is expected to provide significant stimulation to the postal meter industry.

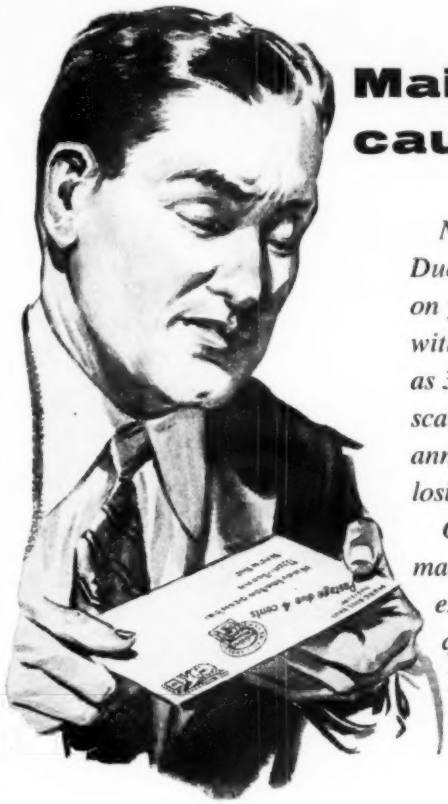
Stamp affixing machines

Most machines of this type are small and designed to apply ordinary postage stamps directly to mailing pieces. In companies that have no postage metering machines this equipment is extremely helpful. Accessory facilities for affixing stamps are often found in large labeling machines and other mailing equipment.

Postal scales

Postal scales vary a great deal in both size and quality. Models range from small letter scales to those designed to weigh parcel post packages. If scales do not have good quality workmanship, they may be inaccurate which will create a problem whichever way the error occurs: A reading which is too high results in unnecessary postage expenditure. A reading which is too low will result in a postage-due letter—a circumstance which may produce bad public relations as well as cause a good deal of annoyance on the part of the recipient.

Scales differ also in their weighing methods. Some use springs, while gravity scales use a system of balances. Indicators vary in arrangement, information, and legibility. One feature



Mailing errors cause gripes!

Nobody likes to get "Postage Due" letters, pay extra postage on your mail, especially now with postage rates up as much as 33⅓ per cent. If your mail scale underweighs, you may be annoying your customers, losing good will for your firm.

On the other hand, if your mail scale is overweighing—the extra 4¢ per letter can waste quite a lot of money in a year. You just can't afford an inaccurate mail scale!

Get a Pitney-Bowes Mailing Scale. Its automatic pendulum mechanism stays accurate, registers fast and exactly. Big chart markings are easy to read, leave no area of doubt. Mailing is faster and easier. And a PB Scale soon pays for itself in postage saved, errors avoided.

Models for every office, large or small, including a 70 lb. capacity parcel post scale. Ask the nearest Pitney-Bowes office to show you, or send coupon for free illustrated booklet.

FREE: *Handy desk or wall chart of latest Postal Rates, with parcel post map and zone finder.*

PITNEY-BOWES
Mailing Scales

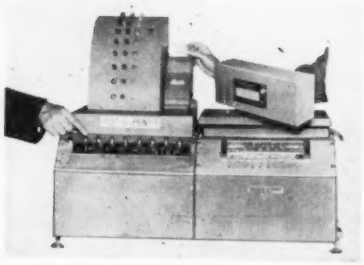
PITNEY-BOWES, INC.,
2977 Walnut St., Stamford, Conn.
Originator of the postage meter . . . offices in 121 cities in U.S. and Canada.

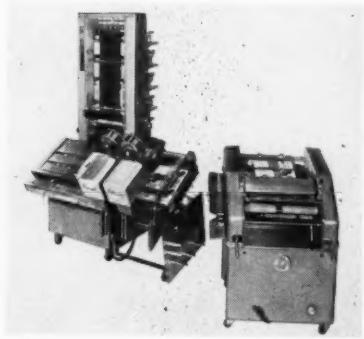
PITNEY-BOWES, INC.
2977 Walnut Street
Stamford, Conn.

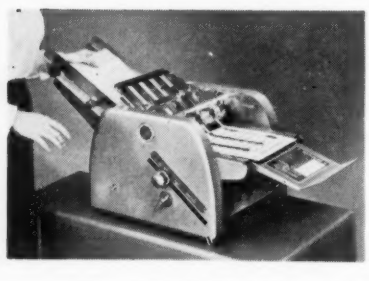
Send free booklet ☐ *rate chart* ☐

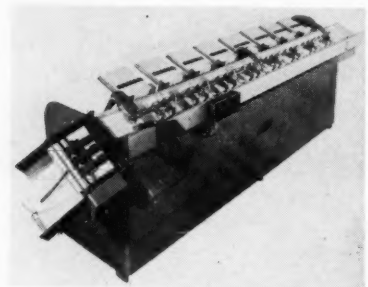
Name _____

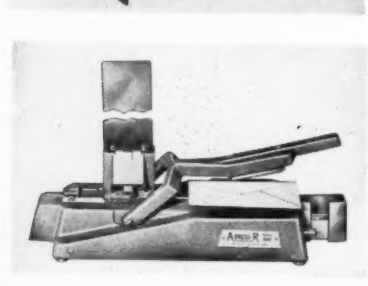
Address _____











Illustrated above, from top to bottom, are Detecto's "Post-O-Printer" scales; J. Curry Mendes' "Bookleteer," a collating machine which besides collating, also folds, stitches, and jogs; A. B. Dick folding machine; The Macey Company's "Macey-matic" collating machine; and Nettle Manufacturing Company's "A-Dress-R" addressing machine.

designed to guard against misreading the scale is the so-called "gunsight" indicator, by which only the pertinent portion of the indicator scale is exposed to view at one time.

Sorting devices

A common type of mail sorting device is a large case or table equipped with bins or racks for different classes of addressees. The equipment is often large and may be custom built.

There also exist very simple sorting devices called desk-top racks consisting of flat boards with hinged dividers for handling small volumes of material. This type of equipment is often originally designed for use in accounting departments rather than the mailroom, and much of it is made in sizes for checks and other material not of letter size. However, since some of it has mailroom applications, it is listed here in cases where manufacturers state that their sorters are so used.

Furniture and miscellaneous

This category includes certain tables and cabinets used in the handling of mail; and also such miscellaneous items as mail bags, mail bag holders, mail carts, gummed tape dispensers, etc. It is, of course, impossible to make such a listing complete, but most of the more familiar mailroom units are mentioned here.

Business mail increasing

At a conference last month of the Association of Records Executives & Administrators, (AREA) in New York, Miss Mona Sheppard, vice president of Leahy and Company, and author of "Better Letters," prefaced her speech with the following statement:

"American business is dispatching a whopping 12,000,000,000 pieces of mail yearly . . . stack it up and it would reach 4,500 miles into outer space—line it up and it would circle the globe 60 times!"

And it is obvious that in helping to control and direct this ever rising tide of correspondence, the different types of mailroom equipment discussed in this section are, literally, indispensable.

The following lists cover the major manufacturers of mailroom items in their respective categories. Due to limited space, it is, of course, impossible to include in this listing all mailing devices now available.

The Manufacturers

Addressing Equipment

Addressograph-Multigraph Corp., 1200 Babbitt Rd., Cleveland 17. Name of line: Addressograph. Number of basic models: 17. Operating principle: metal plates. Operating speeds: 1200 to 9000 per hour. Type of power: manual and electric. Size of copy which can be addressed: 2½ by 3¼ inches to 17¾ by 17 inches. Price range: $22 to $100,000. Special features: All or any portion of information on address plate can be selectively written. Auxiliary information can be programmed to write selectively with address plate. Eight electric models have automatic selection. Five models have auxiliary forms printers. One model writes personalized letters at 3000-4000 per hour.

Elliott Addressing Machine Co., Cambridge, Mass. Name of line: Elliott. Number of basic models: 40. Operating principle: stencils. Operating speeds: up to 2,000 per hour. Type of power: manual and electric models. Size of copy which can be addressed: varies up to 11 by 14 inches. Price range: $50 to $15,000.

The Heyer Corporation, 1850 S. Kostner Ave., Chicago 23. Name of line: Heyer Portable Addresser. Number of basic models: 1. Operating principle: spirit master roll. Operating speed: reduces one hour of hand addressing to 12 minutes. Type of power: manual. Size of copy which can be addressed: prints three-or-four-line addresses on pieces of any size. Price range: $10.95 with initial supplies. Special features: loads like a camera.

The Multistamp Company, 527-29 West 21st St., Norfolk 10, Va. Name of line: Multistamp. Number of basic models: 5. Operating principle: stencils. Operating speeds: approximately 60 per minute. Type of power: manual. Size of copy which can be addressed: from ⅞ by 3¼ to 7⅜ by 10 5/16 inches. Price range: $9.50 to $99.50. Special features: Especially suitable for multiple addressing of labels, tags, or directly on cartons and boxes. Used extensively in shipping rooms and warehouses for shipment marking.

Nettle Manufacturing Co., 27 Huntington Ave., Boston 16, Mass. Name of line: A-Dress-R. Number of basic models: 5. Operating principle: metal plates. Operating speeds: 1300 per hour. Type of power: manual. Size of copy which can be addressed: to 14

by 17 inches. Price range: $75.00 to $125.00. Special features: Model 500 is of heavy cast iron construction, 25 lbs. Prints in consecutive, repeat, and skip fashion; uses fabric ribbons, black or colors; ribbon winds and reverses automatically; produces carbon copies; equipped with two adjustable guides for exact registration.

Rex-Rotary Distributing Corp., 387 Fourth Ave., New York 16, N. Y. Name of line: Listax. Number of basic models: 2. Operating principle: metal plates. Operating speeds: up to 3,000 per hour. Type of power: manual or foot. Amount of copy available for address: 7 lines. Price range: $149.50 to $239.50. Special features: optional form listing, dating, multiprinting, tag-holding, and copy-counting attachments plus various accessories.

S & M Distributing Co., 3875 Garland Street, Wheat Ridge, Col. Name of line: Zip-O-Riter. Number of basic models: 2. Operating principle: spirit duplicating. Operating speed: 500 per hour. Type of power: manual. Size of copy which can be addressed: 1½ inches wide—any length. Price range: $23.95. Special features: statements may be addressed directly from ledger cards.

Scriptomatic, Inc., 1105 Vine Street, Philadelphia 7, Pa. Name of line: Scriptomatic. Number of basic models: 6. Operating principle: spirit masters. Operating speeds: to 40,000 per hour. Type of power: electric. Size of copy which can be addressed: 3 by 5 to 12 by 15 inches, and tapes. Price range: $25 to $60,000. Special features: Machine can read punched cards and unit can be programmed to selectively print, sort, and count.

Weber Marking Systems, Inc., Weber Industrial Park, Mount Prospect, Ill. Name of line: Weber. Number of basic models: 4. Operating principle: stencils. Operating speeds: 105 per minute. Type of power: manual and electric. Amount of copy available for address varies with model. Price range: $295 to $595. Special features: Machine is a label-printing machine which counts, cuts to size desired, prints, and stacks labels from roll form.

Chauncey Wing's Sons, 78 Pierce Street, Greenfield, Mass. Name of line: Wing Mailer. Number of basic models: 1. Operating principle: applies address labels in roll form to flat mailing pieces. Operating speed: variable. Type of power: manual. Price range: $40 to $100.

Pictured above is the new portable "Desk-Top Gatherette" by Thomas Collators. A simple touch of the switch sets the feed arms in motion.

Collators

Addressograph-Multigraph Corp., 1200 Babbitt Rd., Cleveland 17. Name of line: Multigraph Accra Feed. Number of basic models: 2. Number of stations: 50 in automatic bin-type feeder. Type of feed: automatic vacuum. Operating speeds: 110 Machine RPM. Type of power: 105-125V (15AMP). Price range: $5,800 to $7,650.

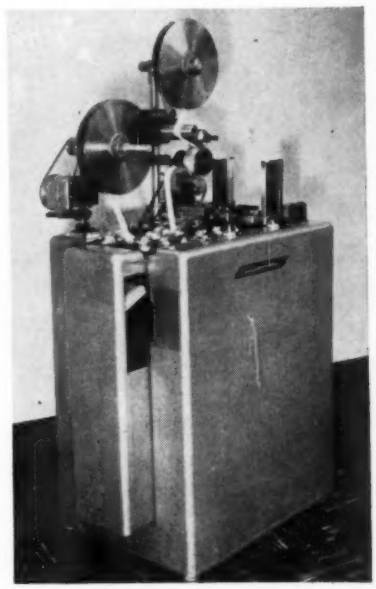
The Collamatic Corp., Wayne, N. J. Name of line: Collamatic. Number of basic models: 15. Number of stations (smallest model) 6. Number of stations (largest model) 40. Type of feed: friction. Operating speeds: up to 12,000 sheets per hour. Type of power: 110 V. 60 Cycle. Price range: $149.50 to $2,000. Special features: "Magic Feed" rollers, sliding shelves, and 6-digit counter.

Didde-Glaser, Inc., Hi-Way 50 & West 12th Street, Emporia, Kansas. Name of line: Speed-Klect. Number of basic models: 2. Number of stations (smallest model) 3. Number of stations (largest model) 12 or more. Type of feed: vacuum. Operating speeds: Maximum: 5,000 pick-ups per station per hour. Type of power: electric. Price range: $7,000 to $25,000. Special features: handles various types of stock, micromatic detection.

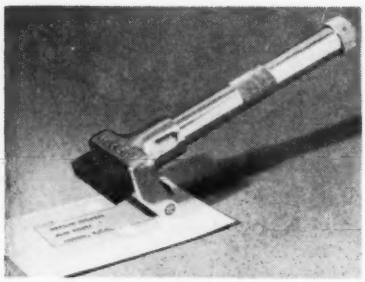
General Photo Products Co., Inc., P.O. Box 23, Chatham, New Jersey. Name of line: Genco. Number of basic models: 1. Number of stations: 12. Type of feed: hand. Price range: $19.95.

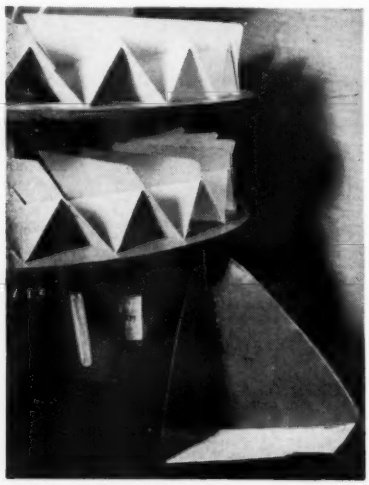
The Macey Co., 1385 Enterprise

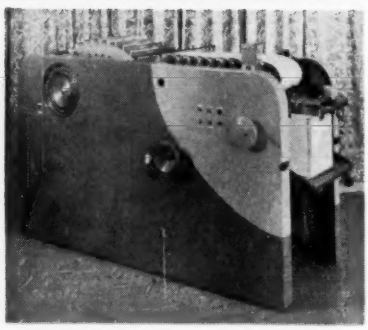
Heyer Portable Addresser comes complete with carrying case, accessories

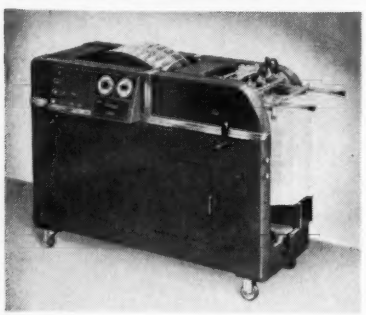


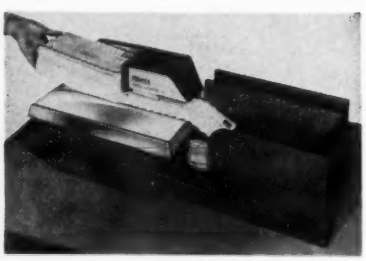
Scriptomatic Model 301 addressing machine can print from punched cards











At left, from top to bottom: "Zip-O-Riter" hand addressing machine by S & M Distributing Co.; Wadsworth's CADM Rotary Collator; Thomas Collators' "Automatic Rotomatic," Addressograph-Multigraph's "Multigraph-Accra-Feed-Collator, Model 650"; and Martin-Yale's "Premier Auto-Opener," an envelope-opening machine.

Ave., Cleveland 35. Name of line: Macey Collator. Number of basic models: 30. Number of stations (smallest model) 4. Number of stations (largest model) 20. Type of feed: vacuum. Operating speeds: 1700-4000 sets per hour. Type of power: electric. Price range: $4,950 to $20,000. Special features: Special caliper inspects for both missing and double sheet pick-up. Attachments available for each model include: offset and crisscross stackers, and side stitcher. Stitch-A-Fold unit can be attached to allow saddle stitching and folding operations with collator as basic feeder.

J. Curry Mendes Corporation, 41 Merrimac St., New Bedford, Mass. Name of line: Mendes Vertical Automatic Collators. Number of basic models: 4. Number of stations (smallest model) 4. Number of stations (largest model) 16. Type of feed: suction. Operating speeds: 18,000 to 72,000 pick-ups per hour. Type of power: To customer specifications. Price range: $4,200 to $22,000. Special features: collates sheet sizes from 6 by 7 to 11 by 17 inches; detects misses and doubles at feeding stations.

Thomas Collators, Inc., 100 Church Street, New York 7, N. Y. Name of line: Thomas. Number of basic models: 8. Number of stations (smallest model) 6. Number of stations (largest model) 50. Type of feed: Gripper-Friction. Operating speeds: 6,000 to 25,000 sheets per hr. Type of power: electric. Price range: $149.50 to $10,000. Special features: Regular (semi-automatic) models have finger lift speed control and are adjustable for forms from 4 by 6 to 17 by 20 inches. Automatics have sheet detector for misses and doubles; automatic selection of individual sheets by programming dial.

Wadsworth Mfg. Co., P.O. Box 125, Wadsworth, Ohio. Name of line: CADM. Number of basic models: 2. Number of stations (smallest model) 20. Number of stations (largest model) 180 or more. Operating speeds: from 2,400 to 50,000 sheets per hr. Type of power: electric. Price range: $475 for standard machine. Special features: Instantaneous set-up and speed changes; complete flexibility for sheet sizes and number of stations.

Opening and sealing machines

Better Packages, Inc., 252 Canal St., Shelton, Conn. Name of line: Super Envelope Moisteners. Number of sealers: 2. Type of power: manual.

Friden, Inc., 2350 Washington Ave., San Leandro, Calif. Name of line: Friden Multi-Opener Model MO, Friden Multi-Sealer, model MS. Openers in line: 1. Number of sealers: 1. Type of power: electric. Operating speeds: 333 envelopes per minute.

Derby Sealers, Inc., 100 Seymour Ave., Derby, Conn. Name of line: Derby. Number of sealers: 14. Type of power: manual and electric. Price range: $39.50 to $350.

Glue-Fast Equipment Co., Inc., 11 White St., New York 13. Name of line: Glue-Fast. Number of sealers: 2. Type of power: manual. Price: $5.00. Special features: will also moisten gummed labels.

Lansdale Products Corp., Box 568, Lansdale, Penn. Name of line: Faltex. Offers a combination opening and folding machine. Type of power: electric. Price range: from $300.

Martin-Yale, Inc., 2100 W. Fulton St., Chicago 12. Name of line: Premier Auto-Opener. Number of openers: 1. Type of power: electric. Operating speeds: 400 per minute. Type of power: electric. Price: $99.95. Special features: A new feed belt and bearing mounting which gives faster, cleaner, more precise envelope opening, and permanent positioning of cutting blades.

Office Accessories Corp., 660 S. Fair Oaks Avenue, Pasadena 2, Calif. Name of line: Jiffy. Number of openers: 1. Number of sealers: 1. Type of power: manual. Price: $1.00.

Pitney-Bowes, Inc., Walnut & Pacific Sts., Stamford, Conn. Name of line: Mail Openers. Number of openers: 3. Pitney-Bowes postage metering machines can be used for sealing independent of meter stamping or postmarking of letters. Operating speeds (openers) up to 500 per minute; (sealing meters) 180 per minute. Price: (Openers) $47 to $250. (Meters) $375 to $1,405.

Pres-to-Line Corporation of America, 2339 Cotner Ave., Los Angeles 64. Name of line: Magic Mailer. Number of openers and sealers: 1 (combina-

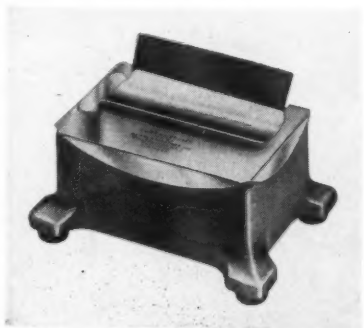
tion opener and sealer). Type of power: manual. Price: $9.45. Special features: machine moistens and seals envelopes in one operation; may also be used as a stamp moistener.

Standard Duplicating Machines Corp., 1935 Parkway, Everett, Mass. Name of line: Standard. Number of sealers: 3. Type of power: manual and electric. Operating speeds: to 8,000 per hour. Price range: $15.00 to $167.00. Special features: electric model has automatic feeding, moistening, sealing, and stacking.

Folding and inserting machines

Bell & Howell Phillipsburg Co., 11 West 42nd St., New York 36. Name of line: Phillipsburg Inserters. Number of basic models: 32. Functions of machine: gathers, opens flap, inserts, seals, prints indicia, counts and stacks. Type of power: electric. Operating speeds: up to 6,000 per hour. Number of stations: 2 to 8. Size of material which can be handled: 5¼ by 3⅛ to 13½ by 9½ inches. Price range: $4,000 to $30,000. Special features: Knife edge feeds for tab cards; open fed for bulky, fragile, or loose ma-

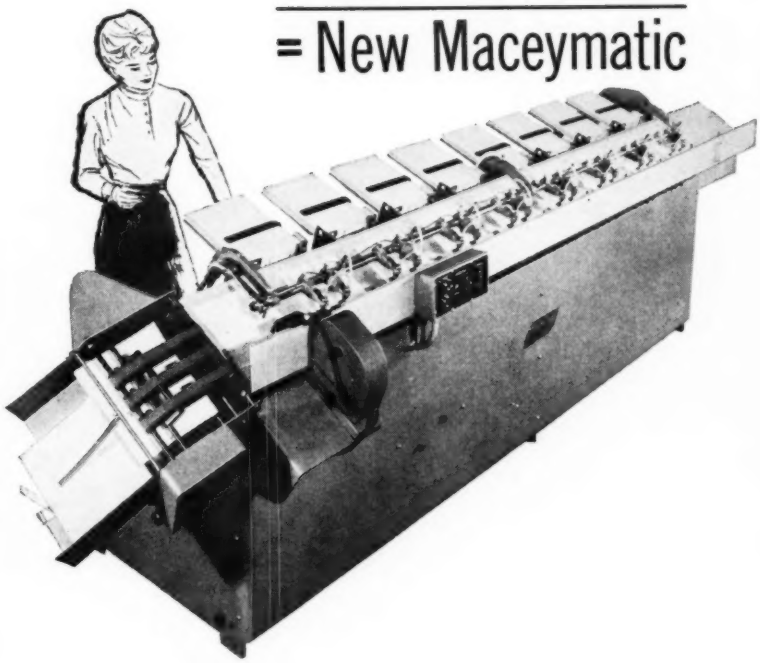
"Jiffy" by Office Accessories Corp., is simple letter opening device



Envelope moisteners, such as this one by Better Packages, aid mailroom work

In automatic collating

Lowest cost
+ Highest speed
= New Maceymatic



If your office prepares multi-page reports, catalogs and similar collated materials at frequent intervals, you'll save time and money with MACEYMATIC. This fully automatic, vacuum-feed collator costs less than any other . . . offers many features found only on higher priced machines.

Maceymatic frees your clerical help for other duties. It relieves them of a tedious, exhausting job. (Often done at overtime rates.)

Automatic, fast, errorless, MACEYMATIC is inexpensive to operate. It offers such features as missing sheet detector; speed of 2,600 cycles per hour; one-minute set-up time; handles sheet sizes ranging from 5″ x 8″ to 9″ x 12″.

Booklet will help you. In case you aren't certain that a MACEYMATIC has a place in your business, send for a copy of "The Gathering Storm". It will open your eyes to facts you might not be aware of.

Free survey. Get in touch with us and we'll run a fast check of your business to help determine where and how you'd save with a MACEYMATIC . . . how quickly it would pay for itself out of savings.

HARRIS INTERTYPE CORPORATION

MACEY COMPANY
A Subsidiary of Harris-Intertype Corporation
13821 Enterprise Avenue, Cleveland 35, Ohio

Use Readers' Inquiry Coupon on Page 88

terial; postal indicia printer; nesting devices; power conveyors; choice of Double Document Detectors; handles open window envelopes and folded material; many unusual attachments applicable such as glue spot devices. New Universal-B size model has very broad scope of operation; can mail many different sizes of material.

Davidson Corp., 29 Ryerson St., Brooklyn 5. Name of line: Embee. Number of models: 2. Functions of machines: folding, scoring, slitting, perforating. Type of power: electric. Operating speeds: to 12,000 per hour (with 8½ by 11-inch sheets). Size of material which can be handled: model 230, 9¼ by 18 inches; model 360, 13¾ by 27 inches. Price range: $395 to $625: Special features: automatic feed; unit can score, slit, and perforate either independently of, or in conjunction with, folding.

A. B. Dick Co., 5700 West Touhy Ave., Chicago 31. Name of line: Model 57 Folder. Number of models: 1. Function of machine: folding. Type of power: electric. Operating speeds: to 9,000 pieces per hour. Size of material which can be handled: to 9⅜ by 21 inches. Special features: Infinite choice of special fold settings can be made easily and quickly; unit has self-lubricating bearings and 1/6 h.p. AC motor (DC available).

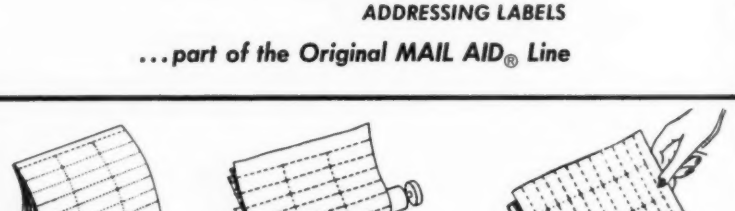
Lansdale Products Corp., Box 568, Lansdale, Penn. Number of models: 1. Functions of machine: folding and letter opening. Type of power: electric. Operating speeds: 5,000-10,000 per hour. Price range: from $400. Special features: combines opening and folding; all machines equipped with scorers; perforators optional.

Martin-Yale Inc., 2100 W. Fulton St., Chicago 12. Name of line: Premier Auto-Folder. Number of models: 1. Function of machine: folding. Type of power: Electric. Operating speeds: 5,000 pieces per hour. Price: $149.95. Special features: automatic feeding, automatic electrically powered conveyor stacker. Size of material which can be handled: 2½ by 4 to 9½ by 15½ inches. Special features: Fully automatic electrically powered conveyor stacker.

Pitney-Bowes, Inc., Walnut and Pacific Streets, Stamford, Conn. Name of line: Pitney-Bowes. Number of models: 2 inserters, 2 folding machines. Functions of machines: folding, inserting. Type of power: electric. Number of stations: (inserting machines) to 6 Size of material which can be handled: Folding machines, 3 by 3 to 11 by 24 inches; Inserting machines, 5½ by 2½ to 12 by 6 inches. Price range: folding machines, $215 to $550; inserting machines, $935 to $10,960.

The Print-O-Matic Co., Inc., 724 W.

"ADDRESSING IS A SNAP"
WITH CARBON-INTERLEAVED
DUPLI-SNAP®
ADDRESSING LABELS
...part of the Original MAIL AID® Line



The fast, practical way of addressing multiple mailings. DUPLI-SNAP labels are interleaved with smudge-resistant carbon—available in sets of 2 to 6 sheets.

No messy insertion of carbons — one quick pull removes carbons intact, with no time-wasting separating. Each sheet in the set is numbered to simplify sorting, to systematize series of mailings, and to avoid duplications.

DUPLI-SNAP labels are packaged in a variety of quantities, from 14 three-part or 10 four-part sets to money-saving boxes of 84 to 250 sets. Even a four-part multi-color set for special uses.

AT YOUR FAVORITE STATIONER

EUREKA EUREKA SPECIALTY PRINTING COMPANY
Dept. 21 Scranton, Pa.

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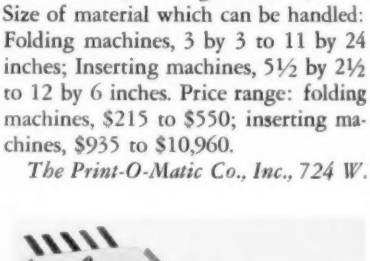
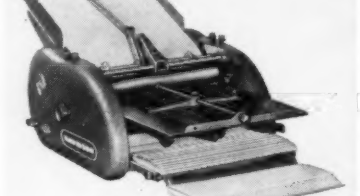


Davidson "Embee" folder



"Fold-O-Matic" folding machine features conveyor belt stacker, automatic feed

Washington Blvd., Chicago 6. Name of line: Fold-O-Matic. Number of models: 2. Type of power: electric. Operating speeds: 120 per minute. Size of material which can be handled: 4 by 4 to 9 by 14 inches. Price range: $200 and $300. Special features: conveyor belt stacker and automatic feed; one model has "forced feed" paper platform.

Postal scales

B-T Company, Inc., 121 N. Broadway, Milwaukee 2, Wisconsin. Name of line: Mite. Number of basic models: 2. Range of sizes: 1 and 4 lbs. Type: spring. Type of indicator: rotating cylindrical chart. Price: $3.95. Special features: quick-change metal dial for replacing changed postal rates without tools or adjustments.

The Borg-Erickson Corp., 1133 N. Kilbourn Ave., Chicago 5. Name of line: Borg. Number of basic models: 1. Range of sizes: 1. Type: spring. Type of indicator: pendulum. Price: $12.50. Special features: parcel post scale with capacity of 50 pounds; has dial lock for later reading.

Detecto Scales, Inc., 540 Park Ave., Brooklyn 5. Name of line: Detecto-Gram; Post-O-Meter. Number of basic models: 6. Range of sizes: to 70 lbs. Type: spring. Type of indicator: rotating cylindrical chart. Price range: $29 to $261. Special features: new product called Post-O-Printer, an electro-mechanical unit capable of handling up to 500 parcel post packages per hour, thus reducing shipping to simple one-machine, one-man operation.

Friden, Inc., 2350 Washington Ave., San Leandro, Calif. Name of line: Friden. Number of basic models: 3. Type of indicator: (Friden Letter Scales, Model 100) pendulum. (All-Purpose Scale and Parcel Post scale) rotating cylindrical chart. Range of sizes: 20 oz. to 70 lbs.

Hamilton Specialties, Inc., 148 Old Colony Ave., Wollaston 70, Mass. Name of line: Hamilton. Number of basic models: 2. Range of sizes: 8 oz. to 1 lb. Type: gravity. Type of indicator: pendulum. Price range: $3.95 and $5.95.

Hanson Scale Co., 1777 Shermer Road., Northbrook, Illinois. Name of line: Hanson. Number of basic models: 5. Range of sizes: ¼ to 50 lbs. Type: spring. Type of indicator: rotating cylindrical chart.

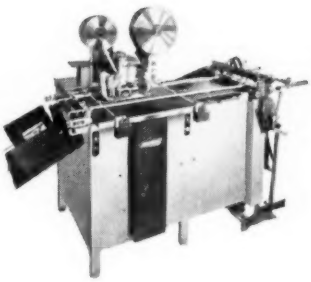
I.D.L. Mfg. & Sales Corp., 281 E. 137th St., New York 54. Name of line: I.D.L. Number of basic models: 4. Range of sizes: 16 oz. to 4 lbs. Types: spring and gravity. Types of indicator: pendulum and gunsight. Price range: $2.75 to $8.00.

Pelouze Manufacturing Co., 1218 Chicago Ave., Evanston, Ill. Name of line: Pelouze. Number of basic models: 4. Range of sizes: 1 lb. to 50 lbs. Type: spring. Type of indicator: gunsight. Price range: $2.95 to $12.75. Special features: easily read dials;

MATTHEWS LIBRARY
A.S.C., TEMPE, ARIZ.

Triner's "Imperial" illustrates the pendulum type of scale indicator

ADDRESS DIRECTLY FROM PUNCHED CARDS!



Scriptomatic®
MODEL 101-S
"READS" • SORTS
SELECTS • COUNTS
While it PRINTS!

Electronic "reading" of punched information on IBM, Remington Rand or other punch-card systems permits the Model 101-S Scriptomatic Addressing Machine to selectively print, sort and count simultaneously *without* disturbing the file sequence.

Simply program the 101-S. You get list handling flexibility and addressing selectivity never before possible in a single, automatic run . . . Or—according to your requirements—sort, collate thru punch-card equipment.

The punch-cards are your "masters"—no more costly stencils—no more duplicate list maintenance—Just ONE punch-card does DOUBLE-DUTY as record file and address master!

Write for Full Color Brochure on Model 101-S.

A PERFECT MARRIAGE . . .
Punched Card and Scriptomatic Automation

Scriptomatic methods combine all the advantages of punched card automation and conventional addressing equipment. Scriptomatic offers a full range of machines and methods to tie in any punched card system you are using or plan to use. Today you can get all the advantages of a high speed, fully flexible addressing and data writing system . . . at a running cost differential as amazing as the cost comparison between a card and a metal plate. You enjoy not only low first cost but continuing savings in automatic file maintenance, filing space, and elimination of duplicate lists. Scriptomatic is the system geared to tomorrow . . . Imagine your punched card system flowing through a Scriptomatic machine for selective, flexible, high speed addressing.

802R

Write for case studies and descriptive material. Discover now, at no obligation, if Scriptomatic can improve your procedures.

SCRIPTOMATIC, INC.
316 N. 11th Street, Philadelphia 7, Pa.

Scriptomatic®
MODERN ADDRESSING-DATA WRITING MACHINES AND METHODS

PRINT FROM CARDS...DOUBLE THE FLEXIBILITY...HALF THE COST

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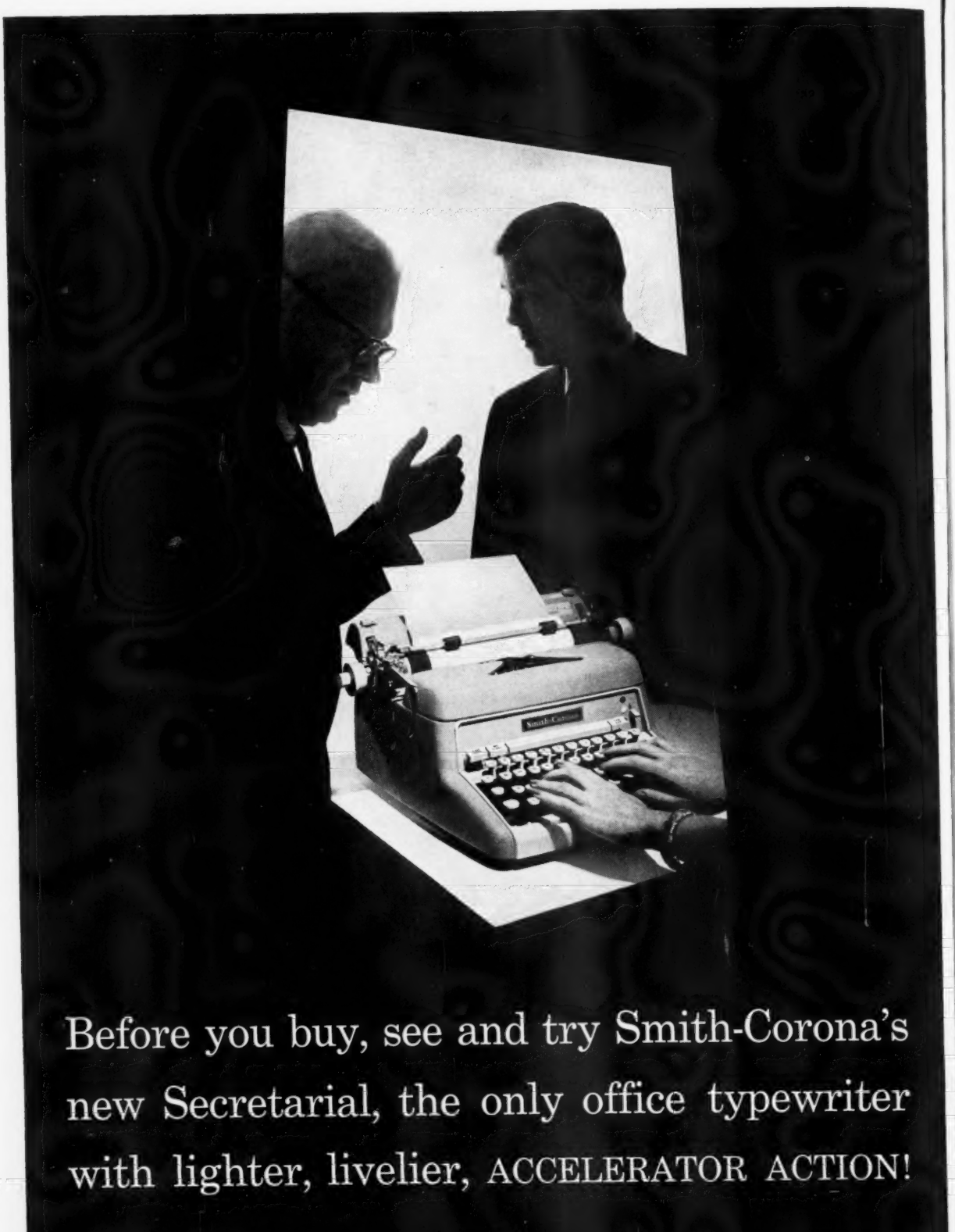


Before you buy, see and try Smith-Corona's new Secretarial, the only office typewriter with lighter, livelier, ACCELERATOR ACTION!

Call your local Smith-Corona representative today!

Use Readers' Inquiry Coupon on Page 88

mileage of all zones as well as parcel post rates indicated on scales; easily replaceable dial.

Pitney-Bowes, Inc., Walnut and Pacific Streets, Stamford, Conn. Name of line: Pitney-Bowes. Number of basic models: 6. Type of indicator: gunsight. Price range: $29.50 to $340. Also, Pitney-Bowes Postage Metering Machine. Number of basic models: 7. Type of power: manual and electric. Operating speeds: up to 15,000 per hour. Price range: to $2,985. Special feature: models will print directly on mail or on gummed tape.

Rudson-Wood Inc., 15 West 44th St., New York 36, N. Y. Name of line: Pocket Postal. Number of basic models: 2. Range of sizes: 2 to 4 oz. Type: gravity. Type of indicator: pendulum. Price: $2.00.

Toledo Metal Furniture Co., 1100-1200 Hastings St., Toledo 7, Ohio. Name of line: Toledo. Number of basic models: 7. Range of sizes: 1 lb. to 70 lbs. Type: gravity. Types of indicator: pendulum, rotating cylindrical sphere, gunsight. Price range: $135 to $492.

Triner Scale and Manufacturing Co., 2714 West 21st St., Chicago 8. Name of line: Triner (Automatic and Beam). Number of basic models: 5. Type: spring and gravity. Range of sizes: 8 oz. to 200 lbs. Type of indicator: pendulum, beam. Price range: $18 to $380.

Sorting devices

Amberg File & Index Co., Kankakee, Ill. Sort-All sorting equipment of the small desk-top variety, with dividers hinged to a flat surface, suitable for sorting correspondence and other material.

Associated Industrial Designers, P. O. Box 39652, Los Angeles 39, Calif. Col-a-tron desk-top racks suitable for sorting correspondence. Models range in size from 72 to 100 divisions. Also available: large shuttle carriage units with many more subdivisions. Price range: $38.50 to $450.

Friden, Inc., 2350 Washington Ave., San Leandro, Calif. Line of sorting racks.

The General Fireproofing Company, 413 Dennick Ave., Youngstown 1, Ohio. Line of sorting equipment.

Kohlhass Co., 8012 S. Chicago Ave., Chicago 17. Variety of sorting equipment priced from $12 to $60 according to size and classification.

Tools of the Office

LeFebure's "Mail-Kwik" efficiently handles interdepartmental mail

LeFebure Corp., 716 Oakland Rd. N.E., Cedar Rapids, Iowa. Mail-Kwik line of bin-type sorting units and mail sorting carts.

Pitney-Bowes, Inc., Walnut and Pacific Sts., Stamford, Conn. Line of sorting racks and sorting bins.

The Recordplate Co., 130 North

COUNT FASTER

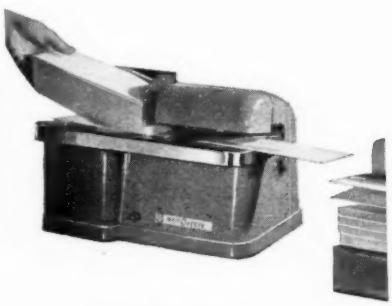
PAPER HANDLING COSTS LESS WITH SORTKWIK®

The non-allergenic fingertip preparation
Eliminates rubber fingers, messy sponges

Easy to use—Just apply to fingertips for greaseless, stainless, tacky film. Pick up papers easily, quickly.
Non-drying—contains no drying alcohol.
Long-lasting—One application is long lasting.
Widely used—Thousands of businesses speed up sorting, counting, filing, posting with SORTKWIK.
See your stationer or send $1.00 for 2 regular size containers for trial.

LEE PRODUCTS COMPANY
Dept. OM-6, 2736 Lyndale Ave. So.
Minneapolis 8, Minnesota

Receipts tallied earlier!



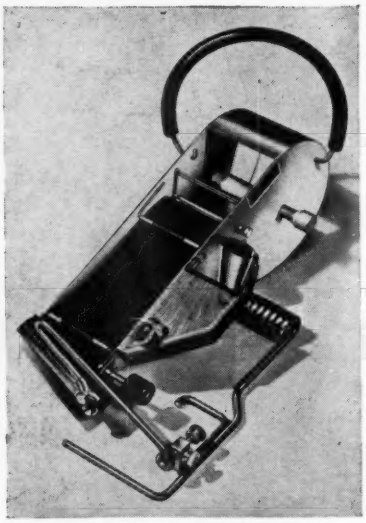
• **Payments and orders** can be checked and processed earlier in the day—when your morning mail is opened promptly and distributed early. A MailOpener saves time for all departments.

• Opening mail by hand is inefficient, slow. A MailOpener safely, easily trims a hairline edge off an envelope in an instant without damage to the contents. Handles envelopes of any size, weight or stock. Three models, electric or hand.

• Big time saver in even a small office. Call any Pitney-Bowes office for a trial demonstration in your office, without obligation. Or write for free illustrated booklet.

PITNEY-BOWES
MAILOPENER
PITNEY-BOWES, INC.
2951 Walnut Street, Stamford, Conn.
. . . originator of the postage meter . . . offices in 121 cities in U. S. and Canada.

FREE: *Send for handy desk or wall chart of new postal rates, with parcel post map and zone finder.*



Labeling device by Dick Mailer

Stromberg's "Autospeed" time stamp

Fair Oaks Ave., Pasadena, Calif. Sorters of the strip type in a variety of sizes, divisions from 25 to 100. Price range: $5.45 to $24.95.

The Sorter-Graf Co., 4044 W. Jefferson Ave., Detroit 9. Line of sorting equipment for sorting and processing office papers.

Speedo-Sort Co., 4016 N. Harding Ave., Chicago 39. Line of sorting racks with individually attached and removable dividers.

Furniture and Miscellaneous

Better Packages, Inc., Shelton, Conn. Table model electric gummed tape machine: Better Pack 555, which rapidly measures, thermo-moistens, cuts and delivers tape. Also, line of gummed tape dispensers.

Can-Pro Corp., 19 E. McWilliams St., Fond Du Lac, Wisconsin. Line of canvas and leather mailbags; also distributing cases and carts.

Cel-U-Dex Corp., P. O. Box 1127, New Windsor, Newburgh, N. Y. Holdex line of transparent, self-adhesive, insertable label holders used with sorting devices such as bins and shelves. Also, Cel-U-Dex Transparent Signals for classification of material

W. A. Charnstrom Co., 422 S. 7th St., Minneapolis 15. Collapsible, portable, steel mailbag holders for two and four bags priced at $34.50 and $49.50.

Chesley Industries, Inc., 24777 Telegraph Rd., Detroit 41. Mail cart for pick-up and delivery of interoffice mail. Price: $47.50.

Cheshire, Inc., 1644 North Honore St., Chicago 22. Labeling equipment which feeds, cuts, glues, and attaches pre-addressed labels to all types and sizes of printed pieces. Price range: from $3,500 to $21,000.

Equipto Division of Aurora Equipment Co., 422 Cleveland, Aurora, Ill. Line of mailroom furniture including "Benchies," benches which offer storage and drawer space.

Friden, Inc., 2350 Washington Ave., San Leandro, Calif. Line of sorting

Your INSURANCE that every label GETS on, STAYS on
. . . every piece GETS LABELED . . . FAST!

Model E
CHESHIRE
Labeling Equipment

Fully automatic accuracy — applies up to 12,000 pre-addressed labels per hour

SAVES IMPORTANT TIME — SAVES BIG MONEY on pre-addressed labeling jobs for many types of mailings. No wasted labels, no skipped pieces! Every label accurately, neatly applied on the proper spot.

Models start at $3000
Labeling heads available as separate units for various types of machines not manufactured by Cheshire.

Applies labels to envelopes, postcards and lightweight printed pieces up to 11" x 14½"

Widely used by volume mailers. There's a model for your need.

Investigate now — NO OBLIGATION!

CHESHIRE Inc.
1644 North Honore Street • Chicago 22, Illinois

WHAT THEY READ BETWEEN THE LINES IS THE PAPER!

WHAT THEY READ BETWEEN THE LINES IS THE PAPER!

WHAT THEY READ BETWEEN THE LINES IS THE PAPER!

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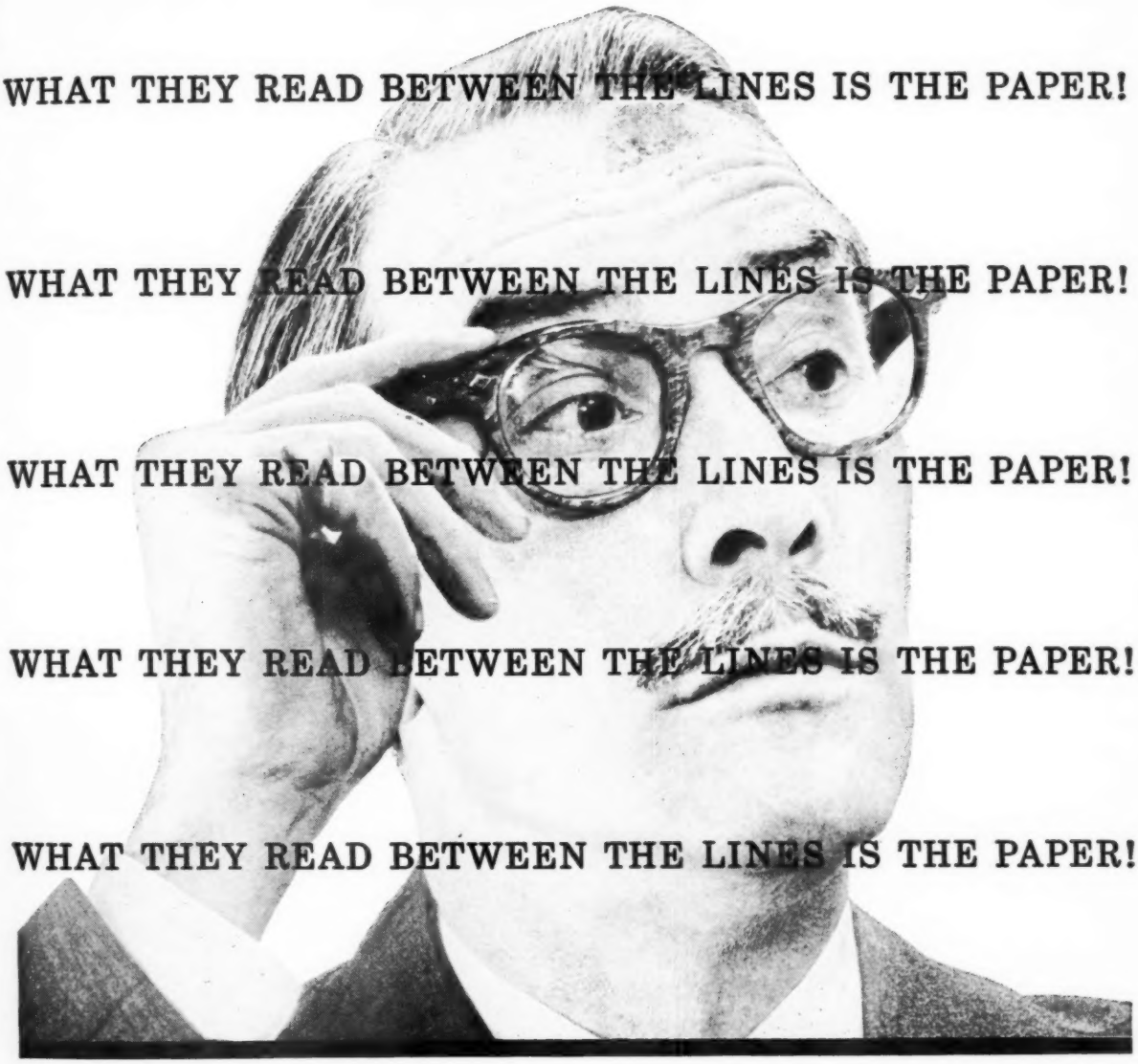

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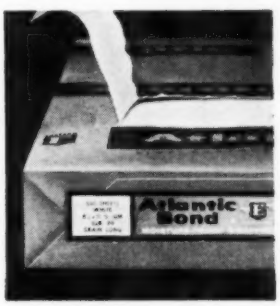
ATLANTIC BOND. The fine business paper with the personal touch. Leader in national sales, Atlantic Bond is the world's finest genuinely watermarked sulphite bond. For dignity. For quiet impressiveness. You make a better impression with Atlantic Bond.

Ask your local supplier—or write direct—for test packets.

NEW EXCLUSIVE E-Z START REAM OPENER

Simple. Practical. Just pull the tab. The ream of paper is open. No broken fingernails. No torn or cracked paper. Makes storage simpler.



EASTERN Atlantic E Monarch
EXCELLENCE IN FINE PAPERS

EASTERN FINE PAPERS

EASTERN FINE PAPER AND PULP DIVISION
STANDARD PACKAGING CORPORATION · BANGOR, MAINE

Use Readers' Inquiry Coupon on Page 88

racks, tables, shelves, mailbags, and mailbag holders. Also, manual stamp affixing machine.

Hartman Metal Fabricators, Inc., 133 Murray St., Rochester 6, N. Y. Hartman Multi-Purpose Handling Equipment is line of adjustable-shelf traveling racks with hook-on trays.

Ideal Stencil Machine Co., Belleville, Ill. Line of gummed tape dispensers.

Lee Products Co., 2736 Lyndale Ave. S., Minneapolis 8, Minn. Sortkwik, a fingertip application which aids sorting, counting and filing.

D. Mailer Co., 137 W. Tupper St., Buffalo, N. Y. Labeling machine which applies addressed labels to various mailing pieces — such a process is known as "Dick Mailing".

Marsh Stencil Machine Co., 82-C Marsh Bldg., Belleville, Ill. Line of gummed tape dispensers.

Nashua Corp., 44 Franklin St., Nashua, N. H. Line of National sealing tape dispensers and Itstix sealing tapes.

Pitney-Bowes, Inc., Walnut and Pacific Sts., Stamford, Conn. Mailroom furniture, including sorting racks, sorting bins, tables, and mailing machine cabinets.

Stromberg Time Corp., Subsidiary of General Time Corp., Thomaston, Conn. Stromberg Time Stamps, 2 basic models used in mail rooms to print date and time of arrival on correspondence and other papers. The No. 112 "Autospeed", is a heavy-duty automatic stamp with paper actuated imprint. The Model No. 5 Time Stamp is a versatile machine which accommodates anything from small tickets to bulky folios. Both units operate on 115 v. 60 cycle AC current. Optional extra inscription plates, prefix characters and changeable inscriptions may be included as part of the imprint. Price range: from $125 to $215.

Swingline, Inc., 32-00 Skillman Ave., Long Island City 1, N. Y. Swingline electric 66 P, remote control, electric stapler for mailroom use.

Syntron Co., 626 Lexington Ave., Homer City, Pa. Line of vibrating paper joggers including Model B2TJ-15 Jogger, new double-bin type. Prices range from about $75 to $150.

Next month's "Tools of the Office" series will feature equipment for integrated data processing.

Burden—

(*From page* 36)

someone capable of reading copy and suggesting improvements among either college English instructors or on the city desk of almost any newspaper.

When you find the right person, you will be ready very profitably to go into a program of on-the-job writing training for executives and supervisors. Analyze the responsibilities and activities of key personnel in your company. Formulate some way of scheduling or keeping track of the writing phases of their jobs. Where you have personnel in an executive development program, be sure that their current assignments include written presentations of the type they are likely to encounter as they move on in the company.

Arrange to have all written material screened by your professional writing advisor. In cases where reports are prepared under operating deadlines and cannot wait, have carbon copies set aside for criticism.

The rate at which you can look for noticeable progress from this program

Mail Cart!

Put efficiency in your mail operation! This double-deck polished aluminum mail cart by Chesley lets your mail department categorize incoming mail for quick, error-free delivery. Lower basket for out-going mail. Both baskets are removable.

BASKET SIZE—(Upper) 17½x25x11; (Lower) 17½x25x8
FRAME—High Polished Aluminum • BASKETS REMOVABLE
SHIPPING WEIGHT—33 lbs. • PRICE—$47.50 • TERMS 1% 10 days, net 30 days • F.O.B. Detroit.
File folders to fit guide bars — $.24 ea.

Write for free brochure — or, better still — order today!

Chesley Industries, Inc.
24777 Telegraph Road, Detroit 41, Mich.

FREE GENUINE ENGRAVED LETTERHEADS
DIES AND PROOFS $15.00 FOR 1000
Genuine ENGRAVED BUSINESS CARDS
500 $11 • 1000 $15
BUSINESS ANNOUNCEMENTS
BUSINESS ANNOUNCEMENTS 500 ONLY $20
CLIP YOUR LETTERHEAD TO THIS AD.... MAIL FOR FREE PROOF
$12.00 FOR 100
DEWBERRY ENGRAVING CO.
807 SO. 20th ST., BIRMINGHAM 5, ALABAMA

THE UNITED WAY

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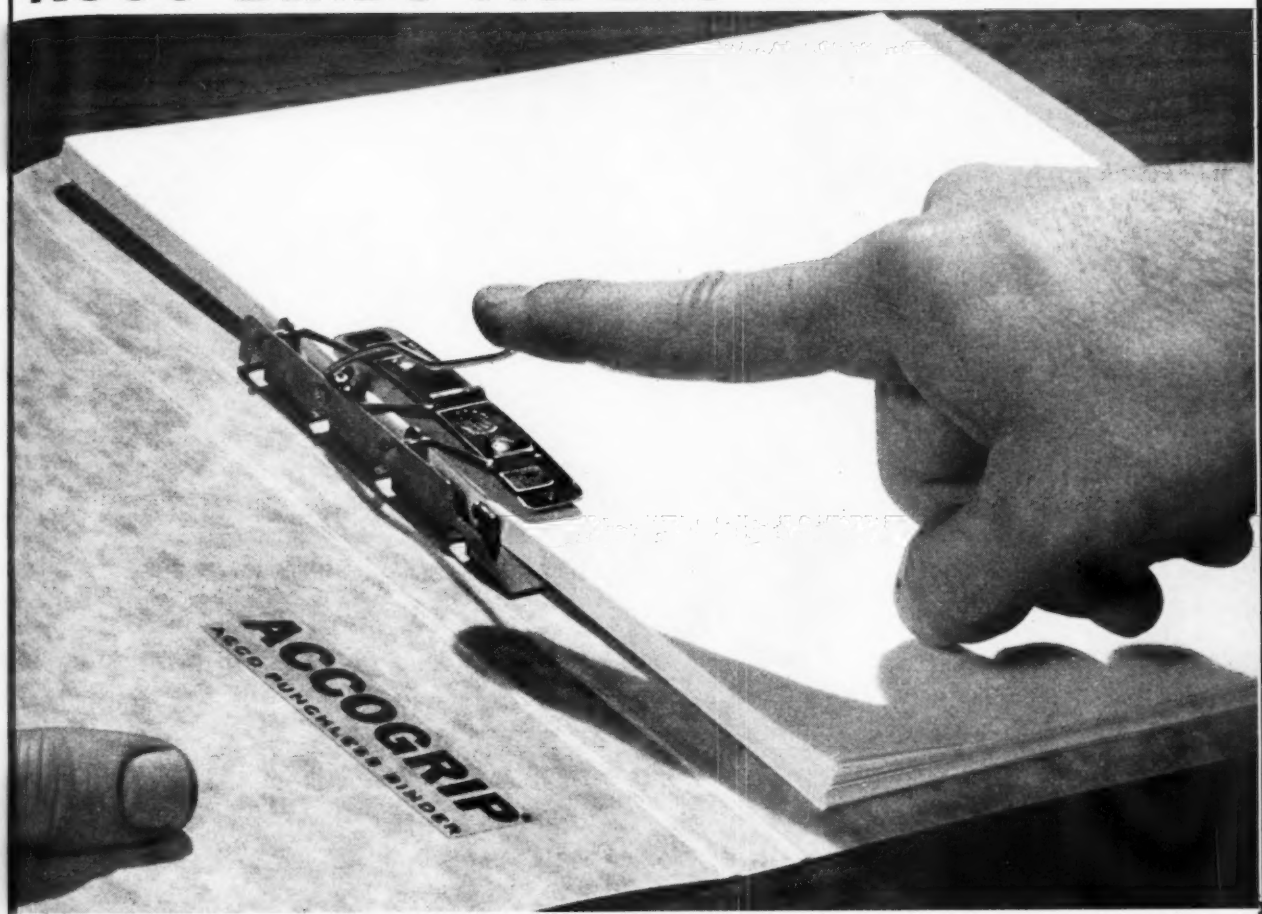
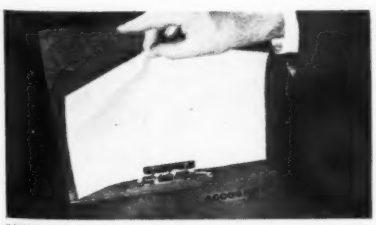
ACCO BINDS PAPERS IN SECONDS



ACCOGRIP® holds together business or personal papers, work sheets, photos, artwork. No marring. You insert or remove sheets instantly.

ONE FINGER DOES IT!

• press to open • press to close



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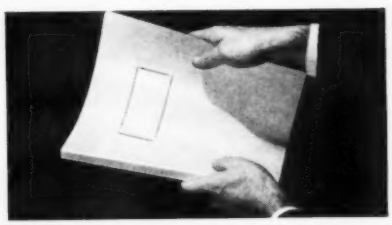

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will, of course, vary with different operating situations. It is recommended that copies of all written materials produced by participating executives be saved in a running file—along with the critical reports of your writing instructor. In an average situation, it is recommended that you check the file of each new executive who enters into the program after about 60 days. By then, in most cases, you should have noticeable progress. At this time, and from this point on, evaluate each individual's progress thoroughly and frequently.

With six months or so of continuing encouragement, a program of this type should pay really handsome dividends. By this time, you should have an organization in which key people are able to express themselves more clearly and skillfully. You will be well on your way to where your executives will be able to accomplish more. Employees whom they supervise will have a better idea of what is expected of them. And, executives or customers to whom they report will be better informed. Allowing that you start with people who are well grounded in the fields in which they operate, the inevitable result will be that your entire organization will function more smoothly.

Up until this point, nothing specific has been said, and it is recommended that nothing be done, about improving the speed and ease with which executives handle their writing chores. Now, we are ready to start evaluating *how* they write as well as *what* they write.

More specifically, you are ready to start training your executives to mechanize their writing through dictation. At this point, you had better be forewarned that this program will be neither simple nor easy. But, in terms of results alone, it could very well be one of the most profitable educational programs your company has ever undertaken.

Don't move too quickly

To start with, you should take a fix on the position dictation holds in the normal chain of business communications.

At the very base of all our written communications, of course, is the handwritten message. It is important that you do not sell the trusty old lead pencil short. In this day of high speed electronic computers, automatic accounting machines, electric typewriters and modernization at every turn, it is interesting to note that there are more lead pencils being sold than ever before. It is fairly important to bear in mind that there is nothing that these modern wonder machines can do which can't also be done with a lead pencil on paper. The only difference is in man hours expended to get the result. However, unless the people who use the new machines have had a sound basis of training and experience—unless they are familiar with their fields at the lead pencil level—any modernization attempted will be superimposed on unfirm foundations.

Therefore, it would be unwise to push people too quickly into writing at high speeds. Dictation, basically, is an advanced form of written communication. As an individual means of expression, it fits ideally into the accepted pattern of business communications. Specifically, our accepted form in the business community is the typewritten letter or manuscript. Dictation—either into a shorthand notebook or a dictating machine—is the fastest, most efficient preparatory writing method.

But, because of our normal educa-

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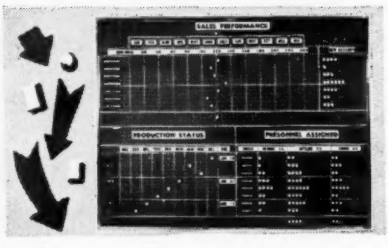

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tional and learning cycle, dictation is usually the hardest writing method to master. All people, in all languages, seem to have dual standards which apply to writing and speaking. Normally, we think about a subject entirely differently if we are writing about it rather than speaking on it. Writing is largely a visual process involving coordination of eye, hand and, of course, mind. Speech is more of a shortcut, involving mind and voice. As such, it does not have the mechanical drawbacks of written communication—particularly pencil-and-paper writing.

Creation by dictation

Obviously, because of the nature of these media of expression, speech is by far the quicker method. Looking at it another way: The human mind can formulate thoughts at almost incalculable speeds. These thoughts can be expressed orally at speeds ranging anywhere from 125 to 250 words per minute. Even an experienced touch typist, finely trained to write on a typewriter, cannot, even at top practical speeds, produce more than half the volume which can be expected even with slow production under the dictation method.

Allowing for a comparison between dictation and handwriting, a fair minimum expectation is that the same executive can work six or seven *times* faster when he is dictating. And, for all practical purposes, the comparison with longhand writing is the real and fair one in this case. There is no doubt that writing on a typewriter is a big step up, in terms of speed, from longhand. But, in the average executive situation, typing skill is not even a practical consideration.

By prevailing standards, the average executive usually thinks he has done pretty well when he has gotten to where he can write his letters by dictation. Even then, in many, many cases, he isn't really proud of his writing. Just as often as not, he will apologize instinctively for anything written by dictation. At budget time, or when he is writing progress reports, or when he is working out a procedure on a new job, the average executive will treat this writing assignment as something far beyond the scope of his dictation ability. He will sit for days, or even weeks on end, scratching away with pencil on paper. Mostly he will consider this as one of the necessary evils of business advancement.

In most cases, the executive is holding himself back. He is limiting his scope. He is accepting dogma for truth. In comparable situations, he would laugh in the face of anyone who told him that an improvement in working methods in his factory or offices was impossible.

Looking at it with any true sense of analysis, however, the facts just do not support popular belief. Some extremely well-written, highly popular novels have been written by dictation. Under the pressure of competition, a number of our large daily newspapers have progressed to where substantial portions of their copy are dictated. A man who is now a vice president of his company credits a rapid advance with the fact that he simply kept his management well informed on what he was doing and was thus able to gain fair recognition. With all his other duties, he reports he could never have made it if he had not learned to do his writing orally.

Our own organization provides what we consider an extremely convincing example of the practicality of writing by dictation. In this case, of course, we have a vested interest. Writing is our

(*To page* 69)

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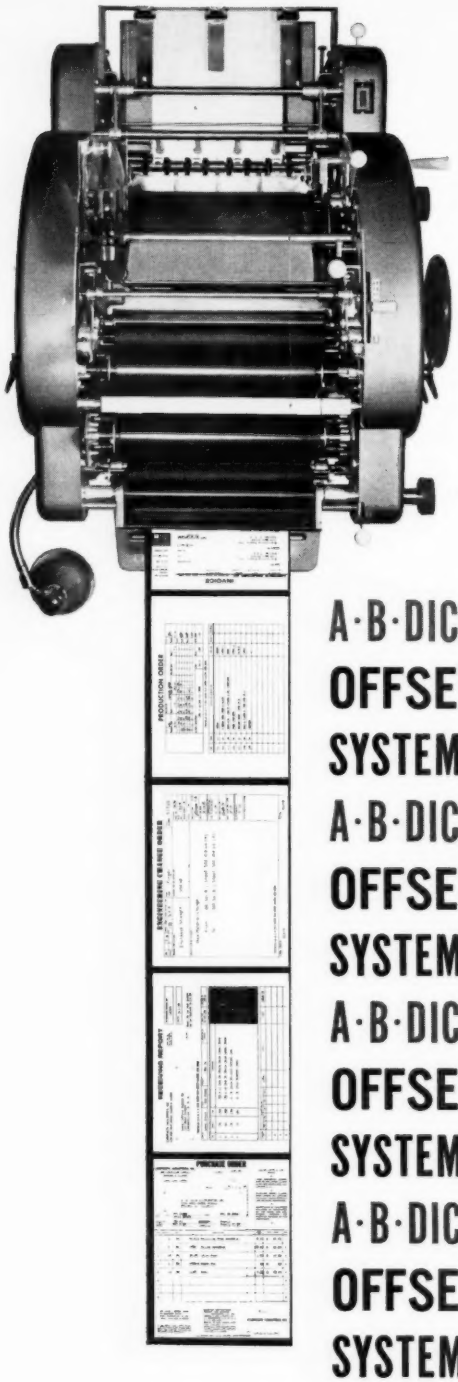

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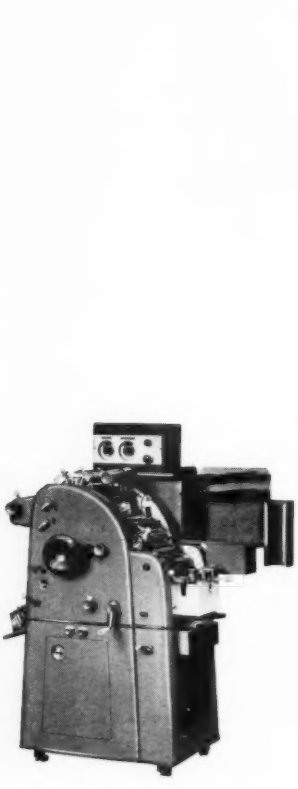

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(*From page 66*)

livelihood. All of our supervising Associates have spent the major portion of their adult years earning a living through their writing ability. Our initial experiments with writing by dictation began in 1952. By this time, the writer had completed just about a full year as a specialist in business communications, management methods and systems and procedures. In approaching the possibility of dictation, we pretty well aped the methods analysts about whom we had been reporting.

Looking at it from this viewpoint, our problem had very much in common with conventional business situations. I had just started the editorial operation which today is offered on a broad national scale. There was more work available than one man could handle, but not enough to go ahead with certainty in hiring another man. The approach used was to look for some way to increase individual output. The problem lay in writing production time.

At the time, I was working out of Chicago, driving some 50,000 miles per year on flat, spread-out Midwestern roads. It took about two months of solid effort to learn to dictate effectively. Then, once this gap had been bridged, I was able to increase my productive output, conservatively, by 60 per cent.

A special individualized situation which was applied in this case helps illustrate another very important advantage of dictation—it is flexible and can be carried on just about anywhere. In writing by longhand or typing, you are pretty well tied to a desk if you plan really to work effectively. With modern dictation techniques, you can pace the floor, lie flat on your back, sit in an airplane or train—just as long as you can concentrate. In my case, the magnetic wire recorder with which I started was set up in the front seat of my car. This, as stated, was an individualized situation. It was based initially on the fact that a substantial portion of my working time was being spent driving a car. It seemed to me back in 1952 that I was most relaxed and thinking most constructively about my work while out on the open road.

Method increases work output

This is not recommended as a cure-all for everyone who does a lot of driving. A lot of thought went into this revision of my operations. Transcriptions of dictated material were carefully checked to be sure style and quality did not suffer. Since 1952, I have written several hundred magazine articles by dictation. This particular article, for example, was written largely on transcontinental airlines, using a Dictaphone Dictet, a battery-operated portable dictating machine which was borrowed especially for experiments in advancing the use of dictation.

With a national staff, Frank Associates is, today, delivering more than six times the volume it did in 1952. Dictation is now a standard working method for us. All but two of our current staff members do a major portion of their work this way. And, the other two are fairly new with us and plan to launch experiments in this direction in the near future.

Today, dictation enables us to turn out between 25 per cent and one third more work than we feel we could do if we stuck to black-on-white writing. It is, therefore, interesting to look back now and recall that only a year ago the suggestion that other members of our staff consider dictating their copy was felt to be unworkable. The reasons advanced were "normal." The men involved had been writing for an average

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of ten years each. They were accustomed to seeing what they were writing, to making frequent changes and to beating on typewriters. These methods, it was felt, were necessary working habits. Each of the men had evolved a comfortable writing routine. No one was adamant against change, but each had a large measure of security in the way he was used to operating.

One of the really interesting things we learned in our own changeover experience is that there is a considerable element of fatigue in conventional writing techniques. In the course of a normal day's writing, it is not unusual, when you add correspondence, reports, and so on, to come up with production totals of 3000 to 5000 words. In simple terms, this amount of work is a physical chore. Doing the same work by dictation makes it possible, usually, to complete it in a fraction of the time. The writer can then break up his days, take time to relax, shift working positions and postures and, in general, wind up his day with more work and less fatigue.

In making a changeover in writing technique, the really big trick is to bridge the gap between the visual and the verbal. This is really the major stumbling block. It must be mastered by each person in his own individual way. We recommend two working techniques as a departure point in the individual's own program:

1) Speak your punctuation as you dictate. Indicate verbally where you want all periods, commas, hyphens, quotation marks, and even apostrophies. Spell out names and other proper nouns the first time they are introduced into your written material. Any words considered unusual or off-beat should also be spelled out. There are no set rules for this. In the long run, it is between the person who is dictating and his typist. The whole point, actually, is that by putting some of the writing mechanics into your speech you will be helping yourself to visualize what you are saying.

2) In sketchy, note form, write out a brief longhand outline of what you want to say before you start dictating. These notes will quickly become working guideposts for you. They will also help immeasurably in building your own self confidence. By way of helping to establish self confidence, we also recommend that the dictation beginner start on easy jobs first. Routine correspondence is usually a good starting point. Once you have started, just move ahead as fast as you feel you are able. You will very probably be pleasantly surprised by your rate of progress.

As you work, be sure to bear in mind that you are creating a continual need for conversion from oral to written form. Simply stated: Speak clearly. Concentrating on enunciation, you will find, will also help in visualizing what you are saying.

At the same time, your speech in dictation does not have to be a halting, one-word-at-a-time proposition. Normally, your mind formulates its writing ideas in chunks, or phrases. No matter whether you are using a stenographer or a dictating machine, you will probably find it easier to work and simpler to make the transition if you speak in natural phrases. If you are using a secretary for your dictation, she will quickly become accustomed to following your continuity.

Try to speak at your normal talking speed. This should be comfortable and will probably help you in making the transition. It should also offer another important contribution in making your writing more "natural." There is a tendency for dictated copy to come out a little more stilted than copy you

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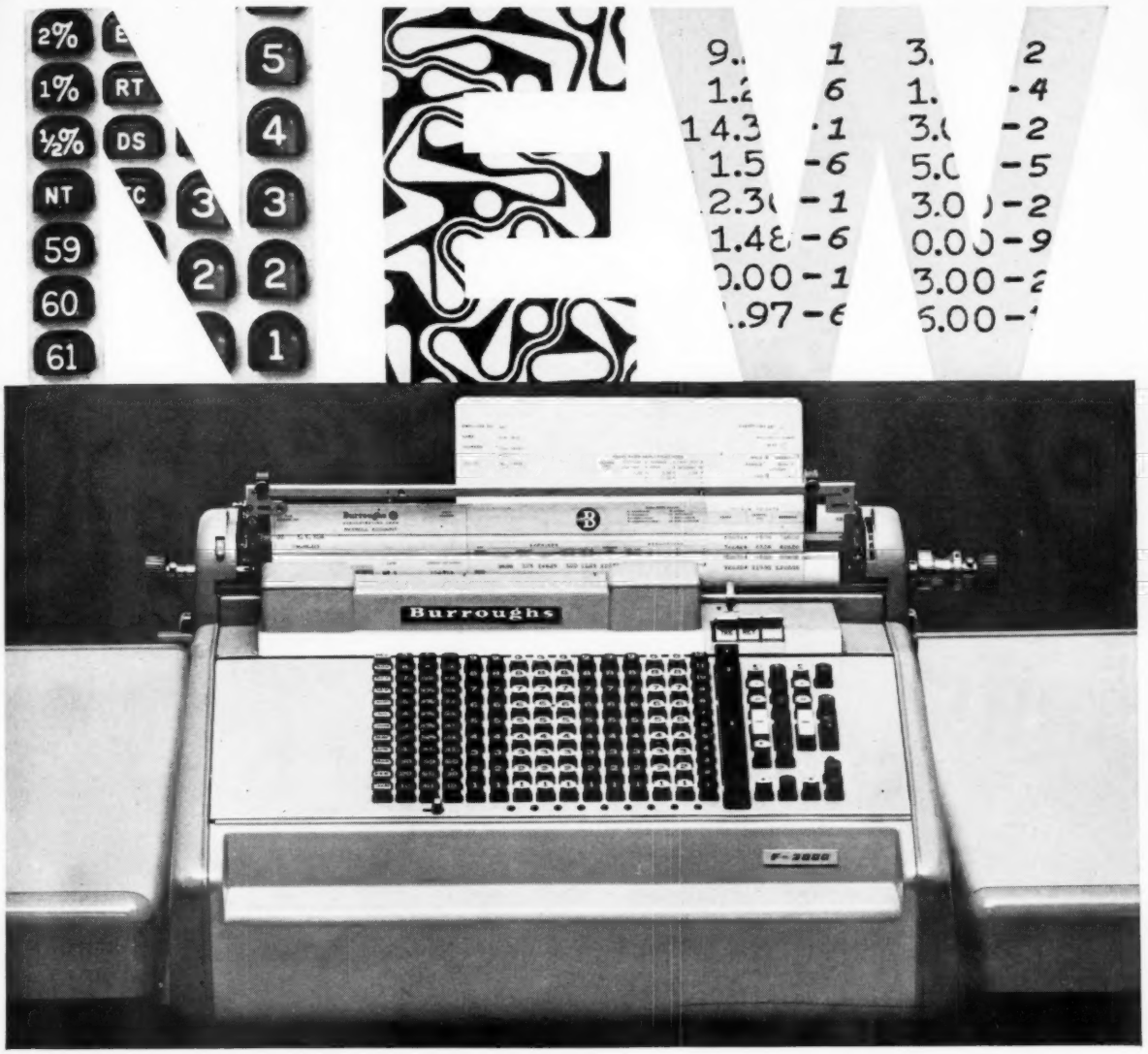

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would write. Most people are surprised by this. Normally, you would expect dictated writing to appear more conversational. Therefore, you had better be warned that a stilted tone is fairly common. Don't worry about it. This is just part of the normal learning process. It is very much like an operator in a factory learning to work a new machine tool. Until he becomes familiar with the equipment, he is all thumbs. Similarly, stilted phrases are the earmark of an awkward writer. You can overcome this with just a little bit of watchfulness. Be on your constant guard, too, against long sentences.

Another aspect of the same problem very often shows up in the form of a tendency to use cliches in dictated copy. You have probably received many letters from correspondents who "beg to inform you," who remain, "Yours Truly," or who state that something "affords me great pleasure." When you fall back on such meaningless phraseology, you are hurting your overall writing efforts. Writing, basically, is a means of creative expression. The more cliches you use, the more you hinder your creative potential.

Similarly, in writing by dictation you will probably notice a tendency to reuse the same word frequently. This is normal and definitely not serious. Watch for this as you read your own dictated copy.

Make it a rule always to read all material which you have dictated before releasing it. You go into the use of dictating primarily to save time. But this is one place where you just cannot afford to economize. A careful reading before release is a vital quality control measure which you should not overlook.

All of the suggestions which have been reviewed here should apply equally whether you dictate to a stenographer or a machine. We will make no recommendation on which dictating system to use. From a working standpoint, there are actually three separate dictating methods, each with its own fine points—each with its own advantages and disadvantages:

(1) Stenographic dictation.
(2) Dictating machines using permanent discs or belts.
(3) Magnetic recording machines.

Making the choice of dictating method is mostly a matter of fitting a tool to a job. Since it is your job, it will be up to you to examine available tools and pick the one which is most likely to help you. Depending on your own or your company's situation, availability of personnel or equipment may well become deciding factors.

When you boil it all down, the job of a business executive is one of self-expression. He owes it to himself to approach his work with the most efficient means he can muster. In the face of staggering communications problems which exist in business, government and industry today, we feel it becomes pretty much incumbent upon progressive executives to investigate dictating as an avenue for efficient performance of their jobs.

Office—

(*From page 33*)

The first problem was solved by "shaving" fifteen feet from the crest of the hill site to remove the overburden of land above the mine. Thus, on May 15, 1957, construction of the buildings began on land which had been relieved of tons of soil to make it solid and safe for heavy structures. As for the second, it is indicative of employees' feelings toward the company that only five out of approximately 500 employees were "lost" in the move. And company officials say that most of these five left for "usual" reasons.

(*To page 76*)

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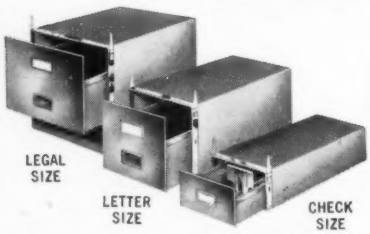

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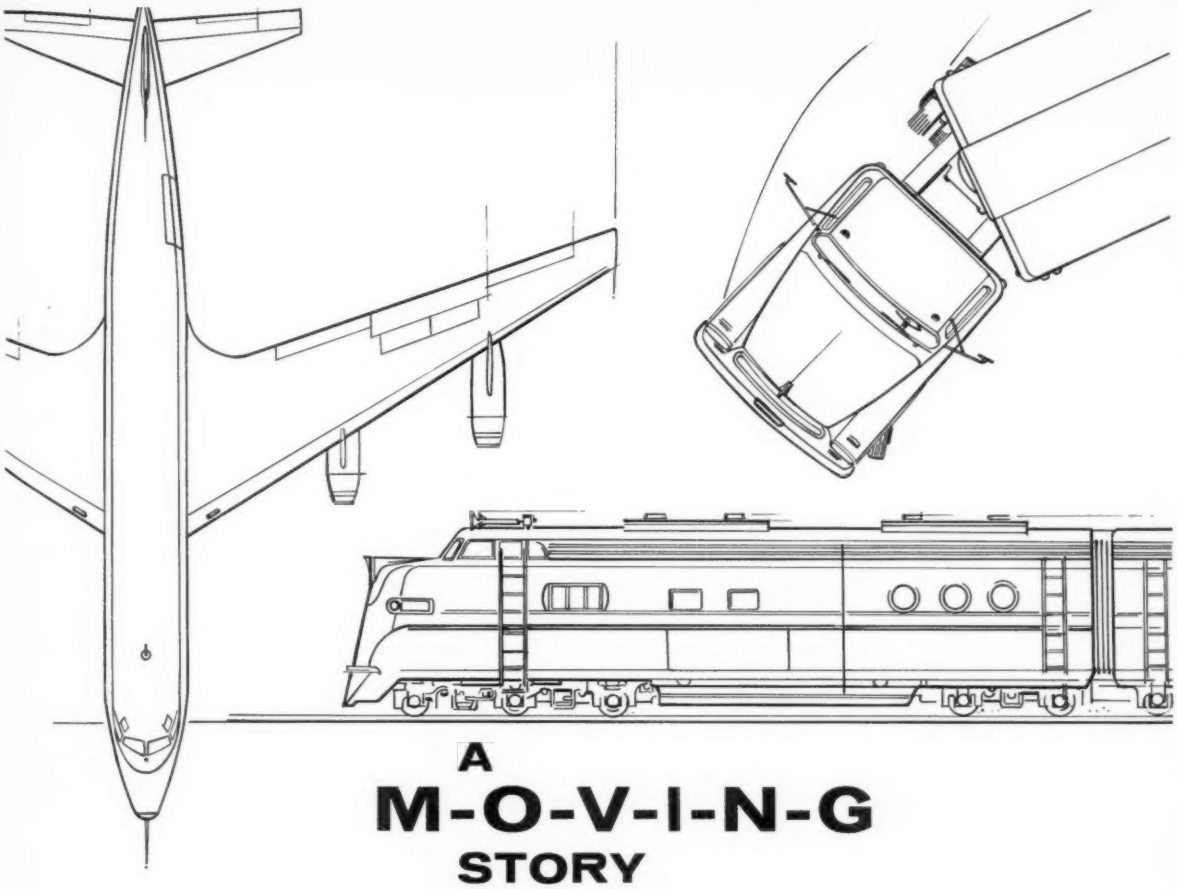

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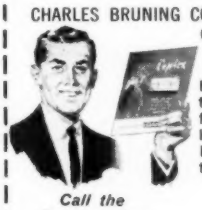

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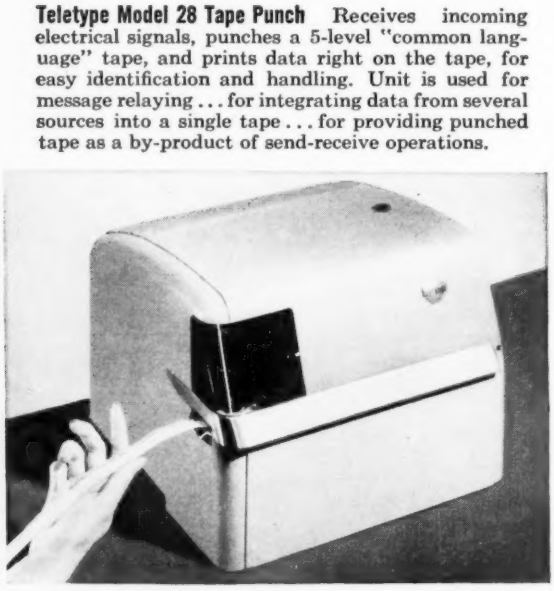
Teletype Model 28 Receive-Only Page Printer A message receiving unit (without keyboard). This is "terminal" equipment, for use where two-way communication is not necessary. No attendant is needed. Produces a printed record on plain paper or multipart business forms. Table models of this unit and the send-receive set at the right are also available.

Teletype Model 28 Tape Punch Receives incoming electrical signals, punches a 5-level "common language" tape, and prints data right on the tape, for easy identification and handling. Unit is used for message relaying . . . for integrating data from several sources into a single tape . . . for providing punched tape as a by-product of send-receive operations.

Teletype Model 28 Tape Reader This is a sending unit. Reads punched tape and instantaneously transmits data to local or remote receiving equipment. As with all Teletype transmitting units, data may go to one destination or a number of destinations simultaneously—either nearby or thousands of miles away.



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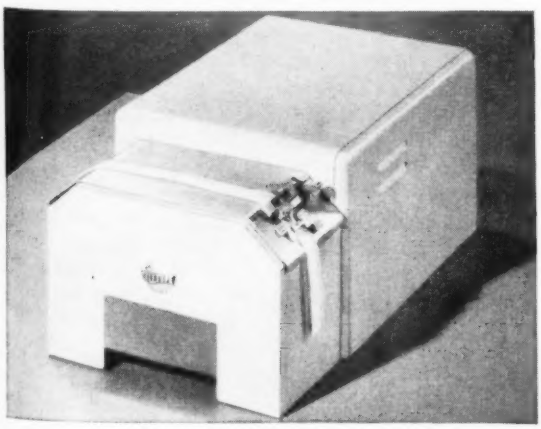
Teletype Model 28 Send-Receive Page Printer Message originating unit, for sending and receiving. Model 28 page units, including the Automatic Send-Receive Set, feature a built-in "stunt box" control system for automatic station selection and electrical control of remote equipment. Horizontal tabulation and form positioning arrangement available.

Teletype Model 28 Tape Reader—Twin-Shaft Unit is similar to tape reader at left. Besides reading punched tape for on-line transmission, twin-shaft reader-distributor design offers facilities for tape transmission to business machines and direct read-out, from business machines, for on-line transmission.



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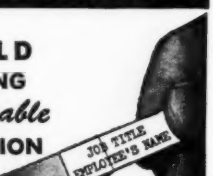

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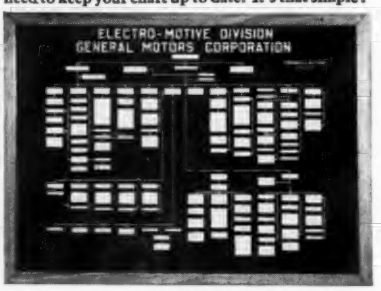

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(*From page* 72)

During the first three months after the offices were opened, Hagan provided employees with free bus transportation from the city. It abandoned this when it learned that only one or two employees traveled by bus; that others took advantage of the lightly traveled Parkway and Hagan's free parking facilities which can accommodate 600 cars.

While sticking close to economy in layout, the company did not stint on providing adequate and pleasant working and recreational areas for all personnel. Both buildings have area-controlled air conditioning, complete with an electro-static air filter. One air-conditioning service area is provided for each wing. Acoustical Fiberglas ceiling panels hold noise to a minimum and recessed fluorescent fixtures are equipped with special diffusers to eliminate shadows. All desks are arranged so that none is more than 30 feet from a window. Each, then, has the advantage of some natural daylight. Traverse draperies at every window are designed to filter light, prevent glare and add to decor as well. Pastel colors enliven walls in work areas and harmonize with design elements. Executive offices are richly paneled and carpeted and furnished to individual taste. Since both buildings are ringed by five-by-eight-foot picture windows set in aluminum casements, executives, and employees, too, are also afforded a scenic view of the surrounding countryside.

Six conference rooms in the main building are strategically located for easy access by all departments.

The cafeteria which services employees is operated by Management Food Service, Inc., a new division of the Stouffer Corporation. The kitchen boasts the most advanced equipment in cooking and serving facilities, and turns out some 400 tasty meals daily over a four-shift period. Adjacent to the cafeteria is an outside patio for "fair weather" relaxing.

The library housed in the Research Center contains close to 4,000 bound volumes pertaining to chemistry and engineering, in addition to 400 different monthly publications and pamphlets. Spacious and comfortable, it occupies an area of 2,500 square feet. The Center also houses complete woodworking and metal shops, stills for laboratory water, and a fully equipped pilot laboratory for studying field problems in both the controls and chemicals divisions.

Modern and unique, too, is a special research kitchen operated by the Calgon Division's Home Economics department, which studies various dishwashing and homemaking problems in terms of the Calgon products.

Planning and construction supervision of the new buildings was under the direction of Robert R. Donaldson, Hagan vice-president in charge of engineering, now retired. The office planning division of Shaw-Walker Co., New York, under Robert Gad, designed facilities. Mellon-Stuart Co., Pittsburgh, was contractor and builder.

Automation—

(*From page* 43)

facturers of data processing equipment. Numbers and symbols imprinted on checks may be read visually, and, since they are printed in magnetic ink, can also be "sensed" by machines. In action, the Series 1200 machines operate as follows:

1. Basic information on account number, bank routing and clearing information is preprinted in magnetic characters at the bottom of all checks and deposit slips issued to customers by the participating bank. These markings guarantee that all charges and credits will go to the right checking accounts.

2. As checks and deposit slips are received, they are proved and distributed in about the same manner as that used by most major banks for more than a decade. However, under the new system an IBM 1201 Proof Inscriber replaces the conventional machine. This machine automatically distributes paper to its proper accounting control group, endorses checks and builds control totals for balancing of statements and other accounting operations. Simultaneously with normal bank proving operations, the IBM 1201 imprints the amount of the check and special processing instructions in magnetic symbols alongside the preprinted account/depositor information.

3. In cases where checks have been too badly mutilated for automatic handling, substitute documents can be prepared on an IBM 1202 Utility Inscriber. This is a special electric typewriter which imprints characters in the universal magnetic code. For damaged checks, the IBM 1202 will write duplicating information on a carrier envel-

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Tel. & Tel. Service	90.7
Inter-Office Communication System	89.0
Mail Room Equipment and Supplies	89.9
Office Acoustical Material	78.5
Office Partitions	84.9
Office Floor Covering (Carpeting, Tile, Etc.)	80.5
Office Floor Maintenance, Equipment & Supplies	77.3
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Employment of General Office Personnel	94.1
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ope. The check will then be placed inside the envelope, which is carried forward for completely automatic data processing.

4. When the original inscription job is completed, checks go to a 1210 Sorter-Reader, which "reads" the information printed on the checks in magnetic ink, and automatically sequences and arranges checks at the rate of 54,000 per hour. Information sensed from the checks can be fed through the 1221 Sorter-Reader Control directly into an electronic computer or punched card data processing system.

Programming—

(From page 29)

and also insuring that the system, when it is extended, will still be efficient, since it is based on a new arrangement of components of individual programs which have already been proved.

"In this approach," he told the AMA, "the barest skeleton of a system comes first. The only purpose of a skeleton is to form some sort of rule by which the individual modules or primitives, as they are called, are to be written. Essentially, the report comes before the full-blown system — it must as a matter of fact, since the system itself never stops developing, but is continually emerging out of all the problems that are being solved due to new requirements that are being submitted by the requestors. It has the advantage of the non-systems approach in that the first reports come back to the requestors as quickly as if no systems attempt had been made. Furthermore, it has the advantage that as more and more reports are called for, the time required to create the programs to supply those reports gets shorter and shorter since more primitives or modules lie around that can be used in the construction of the new reports. Furthermore, it has the advantage that the systems analysts, when they do go over the requirements for the solution of any problem, need not feel bound to sit down and come up with the perfect system immediately, which as I've indicated, is a fruitless attempt anyway, because the programs that will result as a consequence of this systems analysis are not hard-fixed, are not graven in stone so to speak, but can be easily modified to take care of new contingencies which hadn't been conceived of when they made their first attack. As a consequence, though

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the first report may have come before the system, the body of reports, and the system develop simultaneously. Furthermore, this approach has the advantage that the problems can be approached with humility, with a feeling that though one doesn't know how to solve the full problem yet, there is no need for paralysis as a result of this. Each little attempt at building a module is an experiment which hopefully is going to produce something useful. If it fails to do so, the whole system doesn't fall because of this attempt. A complete system does evolve which has the large background of already produced reports sitting behind it to prove the efficacy of the system itself. No big promises are made ahead of time as to what the system will do. The promises are replaced by already accomplished facts. Any new attempt to achieve things that haven't been tried before can be built onto the already growing structure.

"This approach has had spectacular success at Space Technology Laboratories, where we are able to create new, tremendously large programs in a matter of a few weeks. Now, the two-week time lag may seem large compared to that which can be accomplished with automatic programming, but it results in a much more efficient use of expensive computer time. In truth, once more, the full systems approach would not have visualized the problems. They were visualized because of surprising results in previous problems. Inasmuch as these programs are going to run for many, many hours on a computer, the advantages of machine efficiency have easily made the time lag of two weeks worthwhile."

In other words, the modular program concept, according to its exponent, not only offers advantages over automatic programming; it also undercuts the "total system" approach that has long been advocated as the best method of working toward paperwork automation. Instead, it implies a step-by-step approach, in which each successive step becomes easier to program because of a growing inventory of "primitives" which can be used to construct each new program.

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Service bureau—

(*From page* 31)

"service bureau" is, the next question is—is its use profitable for your company, and how do you make that decision?

The first step necessary in order to make a sound decision is to analyze your own operation. The purpose of the analysis is to determine for every operation, and for the entire punched card department:

1. Actual costs versus expected costs.
2. Actual machine and personnel utilization.
3. Actual volume.
4. Required timing for the processing of information, and completion of reports versus actual completion times.
5. A forecast of future requirements.

The method of conducting this analysis is similar to that used in the factory to schedule work. It should follow a logical pattern:

1. Prepare procedures showing each processing step required for each operation, and the time required for each step in terms of a standard quantity.
2. Project volume for each processing step.
3. Compute equipment time required to perform each operation, and clerical time required for nonmechanical processing.
4. Total equipment time required by machine type for each application and overall; add safety factors, and schedule machine time and machine personnel.
5. Total clerical hours required for each application and overall; add safety factors, and schedule clerical personnel.
6. Compute expected cost of each application.
7. Record actual time used and volume processed for each operation.
8. Compute actual equipment and personnel utilization, as well as costs by application and for the department.
9. Compare actual to expected costs and utilization.
10. Compare actual start and completion times for data processing with required completion times.

Having gone through these steps you will, in effect, have prepared a schedule and an experience table to compare with your original forecast. While this is the starting point for a comparison of service bureau operations to your own, it also has great value in determining the effectiveness of your own punch card department. Whether any shifts are made of pres-

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ent applications to a service bureau or not, this analysis of your own operations will provide a continuous working tool for control of your own punched card costs and efficiency.

If you do not have a punched card installation now, but are faced with a choice between installing your own equipment and using a service bureau, the same type of analysis on a theoretical basis, compared to service bureau speeds and costs, will again form a good basis for judgment and decision.

Compare bureaus' services

Now that you have complete written procedures and an evaluation of your own installation, you are ready to make a comparison with the facilities offered by service bureaus. Your standards for evaluation should include costs, processing speeds, convenience, and control. The appraisal should be made both on an overall basis and for each application handled within your own installation. The proper approach to get a fair comparison is first to select the operations which seem suitable to service bureau fulfillment. You can use a service bureau to do all of your punched card processing, without having any of your own equipment at all. You can also use a service bureau to supplement your own punched card installation. Here are some situations from our firm's experience in which service bureau facilities were successfully used:

1. During a conversion from manual to punched card processing.
2. Adding new applications to an installation, including testing of new procedures.
3. Relieving an installation of unprofitable or burdensome applications, which result in overtime, peak loads and non-recurring operations.
4. Supplanting units which have poor utilization records, because they are carried as standby machines or are used on very few applications.

These are some of the situations in which service bureau facilities have been economically used. You may find these as well as others in your own company.

The next step is to ask several service bureaus to quote on their services. Check the reliability of each service bureau, especially in regard to its past record of meeting schedule commitments, while not exceeding estimated costs.

Then submit specifications (which would include procedures, forms, vol-

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You get up to 35% more sheets in a ring binder by using sheet protectors of tough, thin Du Pont "Mylar"* polyester film. Salesmen have less bulk and weight to carry . . . less filing space is required.

Sheet protectors of "Mylar" are tough, long-lasting. "Pull-out" problems at the ring holes are eliminated . . . *replacement costs are cut* . . . sparkling-clear "Mylar" won't yellow or become brittle with age.

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- REINFORCED SHEETS
- INDEX-CARD HOLDERS
- CARBON RIBBON
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"Mylar" is Du Pont's registered trademark for its polyester film. Du Pont manufactures the base material "Mylar"—not finished sheet protectors.

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BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

DU PONT MYLAR® POLYESTER FILM

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ume figures, required start and completion dates), to each of the service bureaus selected.

Next compare quotations from the service bureaus in regard to each other and to the cost of the same applications processed on your own equipment.

While the comparison of costs and processing speeds is a matter of submitted quotations and cost analysis, the estimated worth of the convenience and control of processing the applications involved in your own installation is a matter for individual company judgment. In some cases service bureaus may actually offer advantages in convenience and control. It is easier for some executives to crack down on an outside firm than on their own subordinates. They may find that the technical skill and work habits of a service bureau are difficult to duplicate in their own organization. Service bureaus are used to working on a deadline basis; they are used to meeting budget estimates; they are used to solving technical problems rapidly. In many instances the supposed convenience of having your own installation can actually be overcome by the skill and concentration which a good service bureau offers. In other instances, the physical location of a service bureau becomes important. In still others, especially in larger organizations, technical skill can be found in quantity within the company, and the technical abilities of a service bureau become relatively less important. These last items are all matters of judgment, and must be evaluated in the light of each individual company problem, much in the same way as you would evaluate the purchase of any other outside processing, such as printing or the manufacture of subassemblies.

The fact remains that a large part of your answer will be determined by the comparative costs and speeds of service bureaus versus your own installation, and this determination can only be based on a thorough, factual picture of your own operation and the submission of specifications to service bureaus which reflect today's and tomorrow's operating conditions. Therefore, it is important that the proper operations be chosen for consideration as possibilities for outside processing. The same thing is true here as in any other scientific approach to the solution of problems: the most important thing is to ask the right questions—it vastly increases your chances of getting the right answers.

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No need to do without illustrated catalogs, attractive sales folders, mailers, reprints, letterheads—just because of the high cost of "outside" printing. With the REX-ROTARY D-280 it's easy to turn out *professional* printing right in your office!

Prints *photos...any size type...any type illustration*—in black... in *colors.* Anyone can operate the REX-ROTARY, for it prints automatically (stops automatically, too). It's fast...easy...clean (sealed ink cartridges prevent messy fingertips!). Unique ink control assures uniform printing on every page. And note: at the touch of a lever, letter-size stencils print without masking (a REX-ROTARY *exclusive*).

You'll also want to know about the amazing ELECTRO-REX...the automatic stencil-maker that cuts stencils *electronically!* At the flip of a switch it transfers, to the stencil or offset plate, type proofs, clippings, photos, drawings—exactly like the original.

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Address Phone OM-659

Records—

(*From page* 38)

same record may be called by different names.

(c) The *form number,* if one is involved, is an additional distinguishing bit of information.

(d) *Kind of copy.* This is used to distinguish original documents from carbons or reproduced copies. Obviously an original document will usually have a different retention value from a copy. Sometimes it is helpful to make a note of the color of the paper as another distinguishing mark.

(e) *Included papers* is a listing of papers ordinarily included in a "case file" type record as, for example, in a purchase order folder. Such papers as authorizations to purchase, bids, comparison of bids received, acknowledgment copy of the purchase order, vendor invoices, receiving reports and similar papers would, in this example, be listed. Such a listing is very useful in sloughing off other copies of such papers which may be scattered about the organization.

(f) The *filing arrangement* quite frequently has a bearing on the retention value of a record. For instance, two files may be duplicated in every respect except their filing arrangement,

yet it may be necessary to retain both files to facilitate getting at the information contained in them.

(g) The *volume and inclusive dates of accumulation.* This information might be expressed "100 cubic feet, 1953 to 1958", meaning that 100 cubic feet have been generated in five years or, 20 cubic feet per year. If the value of the information in such a file is questionable it would probably get a short retention period because of the expense of maintaining it. If the volume were only five cubic feet in five years it might be worth keeping because the maintenance expense would be negligible.

(h) The *purpose* of the record is a brief statement explaining what it records or documents or why it is generated or how it is used. Care in expressing the purpose clearly is important because it is the most essential element in evaluating a record. Two copies of the same form, for instance, may be used for entirely different purposes and must be considered accordingly.

(i) You will want to know if *other copies* of the record you are evaluating exist somewhere in the organization. It is pointless to retain several copies of the same record beyond their immediate usefulness if one will suffice.

(j) The *frequency of reference* can be expressed in such terms as "frequently for six months, occasionally for another six months, seldom thereafter", or "frequently while related equipment is in service, never thereafter", or in similar terms.

Setting up retention period

With all the above information concerning each record of each organizational element of your company you are now in a position to take the second step in building your retention schedules. You have sufficient data to evaluate each record and recommend a retention period. You can take several paths. Some companies use "records committees." Others accept the recommendations of the records manager or records analyst, subject to approval of an executive of the company with the concurrence of an attorney.

In the Production Engine Department of the General Electric Company, an initial recommendation is made by the Records Retention Specialist with the concurrence of the supervisor or manager whose records are being evaluated. This initial recommendation is based upon the usefulness of the record from the standpoint of the day-to-day operation of the organization. An experienced supervisor usually has a pretty good "feel" for the value of his records and the Records Specialist can act as a "balance wheel" for those supervisors who want to retain everything "permanently" or for those few who want to throw everything away prematurely. A few minutes' discussion between these two individuals usually results in a recommendation that is quite reasonable. If a particular record is likely to be of interest to other organizational elements of the department, lateral concurrences are also obtained.

A brief "justification" for the recommended retention period is then written for each record. This is a statement showing how the particular recommended retention period was arrived at. It might be a reference to a statute or regulation requiring that the record be maintained for a certain length of time. In other cases it could be the fact that the record is never referred to after a certain length of time. Some "justifications" may require a more elaborate explanation. At any rate, this information is very helpful

"Secretaries never die . . ."

They just stay young indefinitely*—that is, if they use Kee Lox Grip-N-Pull carbon paper. Ask any girl who is already using it (and note how fresh and vivacious she looks —even at quitting time). She'll tell you what nice copies she gets, how clean they are. And she'll be equally enthusiastic over Grip-N-Pull's other features—automatic warning of last typing lines, automatic rotation, automatic alignment.

You too can stay young indefinitely* by letting Grip-N-Pull carbon paper make your work easier and pleasanter. And your boss will be interested in knowing that Grip-N-Pull, with all its advantages and long wear, still costs no more than regular carbon paper which does not have the exclusive patented features of Grip-N-Pull.

*The only exaggeration (one we hope will cause a smile) in this message.

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CARBON PAPERS AND INKED RIBBONS

Sold through KEE-LOX branches and selected independent stationers

Attach to letterhead and mail to

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Send free samples of Grip-N-Pull to:

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to those who subsequently review the recommendations.

After this is done, the facts and the suggested retention period for each record are submitted to an attorney who reviews the recommendation from the legal standpoint. In most cases the suggested retention periods are long enough to satisfy legal requirements; only occasionally does one have to be lengthened. After legal review, the retention period is set and the evaluating process is completed.

For the sake of convenience and to insure uniformity, all the facts about each record, together with the recommended retention period and management approvals, are incorporated in a form. The resulting file of completed forms is the basis for the published schedules and is authority for retention or destruction of the related records.

Find "key" records first

Constructing a set of record retention schedules is quite similar to piecing together a huge jigsaw puzzle — the farther along you progress the easier the task becomes. This is true because precedents are constantly being set upon which subsequent record evaluations can be built. When considering a set of related records it is wise to select the "key" record and establish a retention period for it first. You will probably find that all other records in the group either support, summarize or supplement that one record. For instance, the key record of an organization responsible for the purchasing function is usually the numerical file of purchase orders. Once you establish a retention period for that record, the remainder of the organization's records will fall quite easily into place.

In like fashion, when you progress to the accounts payable records you will probably select the numerical file of vouchers as the "key" record of that group, if your company is using the voucher system. You have decided on a retention period for the purchase order file so you will no doubt retain the vouchers for the same length of time because both files are necessary to document a procurement transaction completely. Thus, another set of related records falls into place.

The final step, publishing and distributing the schedules, can be taken concurrently with the development of retention periods. Records covered by approved schedules should be destroyed immediately and a system installed to insure that as records reach the required "age" they are tagged for disposal. It is extremely important that approved schedules reach the people who have need of them — records custodians and those responsible for the operation of your records storage center.

Records are living things. They change constantly. New kinds are always being generated and others are being discontinued. Once you have a complete schedule of retention periods for your company records, don't stop! Keep it up to date. A yearly review of your company's files is wise, first to see that disposal schedules are being followed and second to amend your schedules according to changing conditions.

The effective scheduling of your records will insure a smooth flow from creation — to active life — to storage — to destruction of your paperwork. Pile-ups of obsolete and useless material in your file rooms and storage areas will be eliminated with substantial savings in paperwork costs and effort. The heart of a good records management program is a records retention schedule. See to it that your program has a heart!

step up to new safety and convenience with KIK-STEP by Cramer

- Safety treads
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Reaching those high places is safe and easy with new Cramer Kik-Step! Rolls when you kick it. Holds when you climb. Nonmarring casters retract as you step up; base "grabs" floor. Step down, the casters release, and Kik-Step is ready to roll again!

Write for complete details

Cramer POSTURE CHAIR CO., INC.,
625 Adams, Dept. OM-6, Kansas City 5, Kans.
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Seagram—

(*From page* 40)

with functions in Order-Billing Department (to avoid duplication).

That document preparation be under the Communications Department and not under Order-Billing Department (to take advantage of existing special skills and because of relationship between document preparation and communications in proposed system).

In the next half-year, a concentrated program was begun to familiarize ourselves with the hardware and detailing the program. Working with Standard Register and equipment personnel, a master tape was designed to carry through all the information to all of the documents involved. This, of course, meant programming functional codes to run the various pieces of equipment (Flexowriters, Computypers, Teletypes, tape-to-card converter), to edit the information and codes from report to report, as well as designing all of the identification codes for inventory, accounts receivable and statistics.

Months of gathering correct master data from all areas (accounting, tabulating, sales, plants, etc.) followed. Finally, our program began in April, 1958, culminating nearly two years of planning. Our largest plant, Lawrenceburg, Indiana, was the first plant to begin the complete cycle incorporating shipping/traffic document preparation. At that time, we used the order tapes to prepare the invoices for the balance of the plants. One might wonder why we started with the largest plant. Our reasons were many but mainly it was because we knew that the volume at this plant would justify the necessary investment. We have since added other major plants and will complete the last by this summer. The latest addition to our Automation Program is the cutover of our import affiliate, Browne-Vintners Co., Inc., to its new "pre-billing" system. Here because of the nature of the business, it was possible to eliminate all intermediate documents and to use the invoice for all purposes.

What is thought to be sound advice to those embarking on such a program is perhaps the single worthwhile purpose this article could serve. Such conclusions do not come cheap — rather they were sired at the cost of some trial and error, some degree of frustration and considerable midnight oil. We feel that the following thoughts are worthy of your consideration:

A. The "total" approach probably added a year to our systems job. This was, in our minds, a most fruitful year in terms of the end-product as well as by-product effects. Not a single reprogramming has been necessary to cover the several operating functions added to the initial program.

B. Don't be oversold on equipment. Rather, we feel that you should add as you grow in location coverage and only where economy dictates. This also applies to your communication network. At the same time, however, always include an appropriate factor for "down time" when estimating your requirements.

C. Do not attempt to place all elements of the system into effect at one time. Certainly all elements should be in the basic planning (this is the total approach) but plan your cutover of the various components several months apart. Start with the order and invoice preparation. Extend the system to the plant activity next. Follow with tape-to-card conversion, etc. Add locations as smoothness in operations occurs.

D. It has become trite in systems circles to suggest that strong top man-

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Mink is a luxury ... but seating comfort in your office is a necessity. You'll get more and better work from your girl Friday when you seat her in a Cramer Secretarial Posture Chair. Completely adjustable, it's a "perfect fit" for her.

Be sure she's "Backed by the Best." Put her in a Cramer chair!

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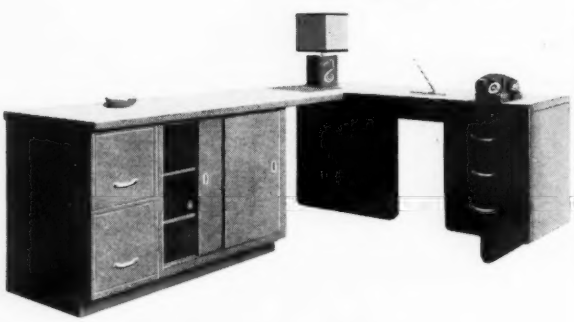

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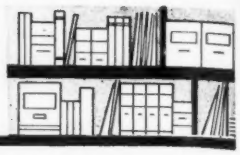
CATALOGS

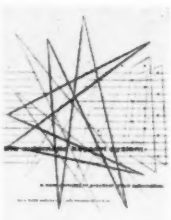
BOOKLETS, BROCHURES

FOR THE OFFICE



Metal Furniture (1)
Borroughs Manufacturing Co., Subsidiary, American Metal Prod. Co. of Detroit, 3002 N. Burdick, Kalamazoo, Mich. A new, 24-page illustrated catalog depicts every product in a line of metal office furniture, including all accessories and special features. Each product is described in detail with the retail price of each item.

Bulletin and Chalkboards (2)
Claridge Products & Equipment Co., Box 278-A, Harrison, Arkansas. Four-color, 24-page catalog describes and illustrates a full line of chalkboards, bulletin boards and aluminum trim. Line drawings showing construction details and recommended installation data are also included.



Data Processing System (3)
Royal McBee Corp., Port Chester, New York. New automatic Keysort data processing system is described in this 10-page brochure (S-500). The method of coding an original unit record for automatic processing is also illustrated.

Bookbinding Equipment (4)
Plastic Binding Corp., 732 S. Sherman St., Chicago 5. The complete line of Plastico Punching and Binding Machines and Equipment is described and illustrated in this 30-page catalog. The catalog offers many suggestions and plastico binding applications for books, manuals, samplers, etc. Available free on request if letter is sent on company letterhead.

Forms Usage Record (5)
Baltimore Business Forms Co., 313 Frederick Ave., Baltimore 29. A special inventory, specification, and record book is offered to help maintain and determine monthly usage of business forms — balance on hand, the proper time and quantity to reorder, etc.

Specialized Filing Systems (6)
Plan Hold Corp., 5204 Chakemco St., South Gate, Cal. A new two-color catalog depicting vertical and roll filing systems is now available. New items of special interest to engineers, designers, and architects are included along with illustrations of all company's products.

Metal Office Accessories (7)
Lit-Ning Products Co., 170 N. Robertson Blvd., Beverly Hills, Cal. A new 12-page catalog lists and illustrates more than 166 items in the Lit-Ning line of metal office accessories and equipment. Catalog L-14 also contains a numerical index.

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Rates: Minimum 20 words $5.00. Each additional word 25¢. Payable in advance. Address replies to all Box Number ads c/o OFFICE MANAGEMENT, 212 5th Ave., New York 10, N.Y.

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BEST OFFER OVER $500.00 will get a complete Lamson Tube System to service three floors. O.M. 323.

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SALE: FACTORY DEMONSTRATOR ELECTRIC 2 in 1 Folding and Letter Opening Machine. Fully guaranteed, Regular price $432.50, yours for $198.50. Lansdale Products, Box 568, Landsdale, Pa.

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Positions Wanted

OFFICE MANAGER. GRADUATE ACCOUNTANT. Mechanical and construction background. Experienced in accounting systems, finance, insurance, public speaking. Age 39. O.M. 320.

agement support be obtained for your integrated data processing system. Nevertheless, it may be useful when you've cut over your new revolutionary system and the heart of the business is demanding first class service. Machines have a fickle nature and people are not always understanding. Certain people may want your scalp during the first month. We, at Seagram, solicited top management support — and we were grateful we obtained it.

E. Coding is something you may erroneously take lightly. Take the time to correct any failures of your present coding system and establish an airtight control over changes. Remember that in a going system there is work in various stages, all requiring maintenance on, among other things, coding changes.

F. Do visit existing integrated data processing installations where the experience of others cannot help but provide background and insight to the problems of "how to plan—install—train for integrated data processing."

G. In cases where a number of forms have been combined, order only a minimum initial supply. You think you've done an excellent forms job, and no doubt you have . . . however, some degree of refinement early in the game will almost certainly be desirable.

H. Draw your own staff to operate the new system from company personnel, if at all possible. Our feeling is that order-billing, and general company experience is more valuable than equipment knowledge and experience. Good typists and teletype operators, who are willing to think, can learn to use your Flexowriters and Computypers effectively with less than two weeks' concentrated training.

I. It makes good sense to plan your cutover to occur several months prior to your busiest season. This takes a fair degree of long range planning, since data processing equipment delivery time may run from four to seven months from order time. One month of parallel operations is desirable, but not mandatory.

J. No large system staff is required to install your integrated data processing operations. Our basic system was engineered by two analysts, using operating personnel for such details as preparing master tapes. Two other analysts designed the tabulating and Computyper systems which used the by-product tape as input (Accounts Receivable, Inventory, etc.).

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REDUCED
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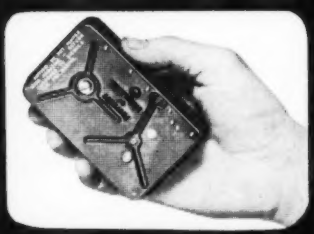
Procedural Microfilming

One of the principles of **Procedural Microfilming,** (the everyday use of microfilm), is the **"Freezing a Changing Record Principle."** When applied to bookkeeping procedures, it **saves time, adds efficiency** and **photographic accuracy.** When used in inventory control and for many other records, time-consuming copying and loss of record availability are eliminated.



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All Principle Cities

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Guide-O-folder*

*T. M. Reg.

Your "filing and finding" problems disappear when you use Guide-O-folders in your active files. Not only do you save both time and money but you remove the drudgery from the filing department and make it a pleasant place to work.

You will appreciate the speed and accuracy with which your records are filed and kept instantly available for reference. Your clerks will appreciate the ease and accuracy because all the tugging and pulling of ordinary folders is eliminated. Guide-O-folders just glide back and forth on their steel frames with finger tip ease.

Ask your local stationer or office equipment dealer to show you how Guide-O-folders will solve your filing and finding problems.

GUIDE SYSTEM & SUPPLY CO.
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SORG's 410 Translucent

Whiteprint Master Copy Paper

• *for* LOW-COST *Direct-Copy Reproduction*

• *Perfect Copies* EVERY TIME!

With the use of direct-print copy machines becoming daily more widespread in the business field, the demand for a high-quality, low-cost translucent master paper has grown tremendously. Now, thanks to its 105 years of experience in making special papers to exacting specifications, Sorg has developed a high-grade translucent paper that meets all the requirements of a top-quality master sheet—and yet is priced low enough to allow its use on EVERY business form.

Sorg's *410 Translucent* is manufactured with controlled translucency so that whether you use typewriter, pen, pencil, or you print it, you will always be sure to get clean, sharp, identical copies every time! In addition, it is strong and durable — stands up well under erasures and frequent handling.

Your request on your own business letterhead will bring you a portfolio of 410 Translucent sample sheets for testing on your own direct-copy machine — as well as the name of your nearest Sorg paper distributor.

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JUNE 1959 ADVERTISEMENT

(Circle respective page numbers on which ads appear)

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4th Cover	20	59 PBI	70 RPC	80 EPI
4	21	60	70 GS	80 SCP
6	22	61	71	81
7	23	62 CII	72 PFC	82
9	24	62 DEC	72 AWF	83
10	26	63	73	84
11	41	64	74	85
12	42	65	75	86
13	51	66 GAC	76 GWC	87
14	55	66 MMV	76 MCC	88 GSS
15	56	66 CCI	77	88 SPC
16	57	67	78 OM	89
17		68		

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June 1959 New Products and Catalogs

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1	A-1	B-1	C-1	D-1
2	A-2	B-2	C-2	D-2
3	A-3	B-3	C-3	D-3
4	A-4	B-4	C-4	D-4
5	A-5	B-5	C-5	D-5
6	A-6	B-6	C-6	D-6
7	A-7	B-7	C-7	D-7
		B-8		

TOOLS OF THE OFFICE
Information on products listed in the Tools of the Office section may be requested by writing in names of manufacturers.

Manufacturers	Page No.

Name .....Title.....

Company .....

Address .....

City .....Zone.....State.....

Number of Office Employees (all departments).....

OFFICE MANAGEMENT
212 Fifth Ave., N. Y. 10, N. Y.

June 1959 issue
This inquiry form good
Until July 15, 1959

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Acco Products Div. of Natser Corp. 63
Agency—Geer, DuBois & Co., Inc.
Acme Visible Records, Inc. 7
Agency—E. H. Brown Adv. Agy.
American Photocopy Equipment Co. ..19, 20, 21
Agency—Irving J. Rosenbloom & Assoc. Inc.
American Telephone & Telegraph Co. 3
Agency—N. W. Ayer & Son, Inc.

Baltimore Business Forms Co. 22
Agency—Vansant, Dugdale & Co., Inc.
Bell Telephone System 3
Agency—N. W. Ayer & Son, Inc.
Benson Mfg. Co. 86
Agency—JD Calea Adv.
Blaisdell Pencil Co. 69
Agency—The Richard A. Foley Adv. Agy. Inc.
Bruning Co., Inc., Charles 73
Agency—H. W. Kastor & Sons Adv. Co., Inc.
Burroughs Corp. 71
Agency—Campbell-Ewald Company

Celotex Corp., The 9
Agency—MacFarland, Aveyard & Co.
Cheshire, Inc. 60
Agency—Burlingame-Grossman Adv.
Chesley Industries, Inc. 62
Agency—Les Strang Associates
Covercraft Co., Inc. 66
Agency—Muir Advertising
Cramer Posture Chair Co., Inc. 84, 85
Agency—Allmayer, Fox & Reshkin Agy. Inc.
Curon Div., Curtiss Wright Corp. 24
Agency—Adams & Keyes, Inc.

Dewberry Engraving Co. 62
Dick Co., A. B. 68, 69
Agency—Fuller & Smith & Ross, Inc.
Diebold, Inc., Flofilm Div. 87
Agency—Ritter, Sanford, Price & Chalek
Du Pont de Nemours & Co., E. I. Fabrics Div. 41
Agency—Batten, Barton, Durstine & Osborn, Inc.
Du Pont de Nemours & Co., E. I. Film Dept., Mylar 81
Agency—Batten, Barton, Durstine & Osborn, Inc.
Du Pont de Nemours & Co., E. I., Grasselli Chemicals Dept. Ludox Wax 6
Agency—Batten, Barton, Durstine & Osborn, Inc.

Eastern Fine Paper & Pulp Div. of Standard Packaging Corp. 61
Agency—Smith, Hagel & Knudsen, Inc.
Eastman Kodak Co., Recordak Corp. 23
Agency—J. Walter Thompson Co.
Economics Press, Inc., The 80
Agency—Carpenter-Proctor, Inc.
Eureka Specialty Printing Co. 56
Agency—Kretschmer & Dinner, Inc.

Faber-Castell Pencil Co., Inc., A. W. 72
Agency—J. M. Kesslinger & Assoc.
Forms, Inc. 64
Agency—Ralph A. Hart Adv.
Friden, Inc. .....4th cover
Agency—J. Walter Thompson Co.

Gates Acoustinet Co. 66
Agency—Clayton A. Stahlka Counselling
General Pencil Co. 89
Agency—Maxwell Sackheim & Co., Inc.
Globe Wernicke Co., The 76
Agency—Strauchen & McKim Adv.
Graphic Systems 70
Agency—Diener & Dorskind, Inc.
Guide System & Supply Co. 88

Haloid Xerox, Inc. .....2nd cover
Agency—Hutchins Adv. Co., Inc.
Hammermill Paper Co. 10
Agency—Batten, Barton, Durstine & Osborn, Inc.

International Paper Co. .....3rd cover
Agency—Ogilvy, Benson & Mather, Inc.

Kee Lox Mfg. Co. 83
Agency—Hutchins Adv. Co., Inc.

Lee Products Co. 59
Agency—Gibson-Erlander, Inc.

Macey Co., Subsidiary of Harris-Intertype Corp. 55
Agency—Fuller & Smith & Ross, Inc.
Mac Panel Co. 42
Agency—Lavidge & Davis Adv.
Maggie Magnetic Visual Aids Corp. 66
Agency—Dale Associates
Management Control Charts Co. 76
Agency—Stern, Walters & Simmons, Inc.
Marchant Calculators Div. of Smith-Corona Marchant, Inc. 13
Agency—Foote, Cone & Belding
Minnesota Mining & Mfg. Co., Thermo-Fax 16
Agency—Erwin Wasey, Ruthrauff & Ryan, Inc.
Moore Business Forms, Inc. 26
Agency—N. W. Ayer & Son, Inc.

National Cash Register Co., The 4, 77
Agency—McCann-Erickson, Inc.
Nekoosa-Edwards Paper Co. 14, 15
Agency—The Cramer-Krasselt Co.

Office Management 8, 78
Oxford Filing Supply Co., Inc. 18
Agency—Kelly, Nason, Inc.
Ozalid Div. of General Aniline & Film Corp. 65
Agency—Benton & Bowles, Inc.

Pitney-Bowes, Inc. 51, 59
Agency—L. E. McGivena & Co., Inc.
Pronto Film Corp. 72
Agency—Daniel & Charles, Inc.

Recordak Corp., Sub. of Eastman Kodak Co. 23
Agency—J. Walter Thompson Co.
Rex-Rotary Distributing Corp. 82
Agency—Geer, Du Bois & Co., Inc.
Reynolds & Reynolds Co., The 78, 79
Agency—Weber, Geiger & Kalat, Inc.
Ronald Press Co., The 70
Royal Typewriter Co., Div. of Royal McBee Corp. 67
Agency—Young & Rubicam, Inc.

Scribe Distributors Co. 11
Agency — Jackson, Haerr, Peterson & Hall, Inc.
Scriptomatic, Inc. 57
Agency—Roland G.E. Ullman Organization Inc.
Smith-Corona, Inc. 58
Agency—Cunningham & Walsh, Inc.
Sorg Paper Co., The 88
Agency—William Savage & Co.
Spot Carbon Products 80
Agency—Lawrence, Kane & Artley, Inc.
Standard Packaging Corp., Eastern Fine Paper & Pulp Div. 61
Agency—Smith, Hagel & Knudsen, Inc.

Teletype Corp. 74, 75
Agency—Marsteller, Rickard, Gebhardt & Reed, Inc.

Underwood Corp. 17
Agency—William Esty Co.

Wiley & Sons, Inc., John 12
Agency—Needham & Grohmann, Inc.

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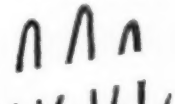

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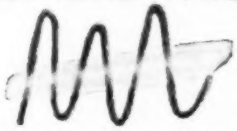

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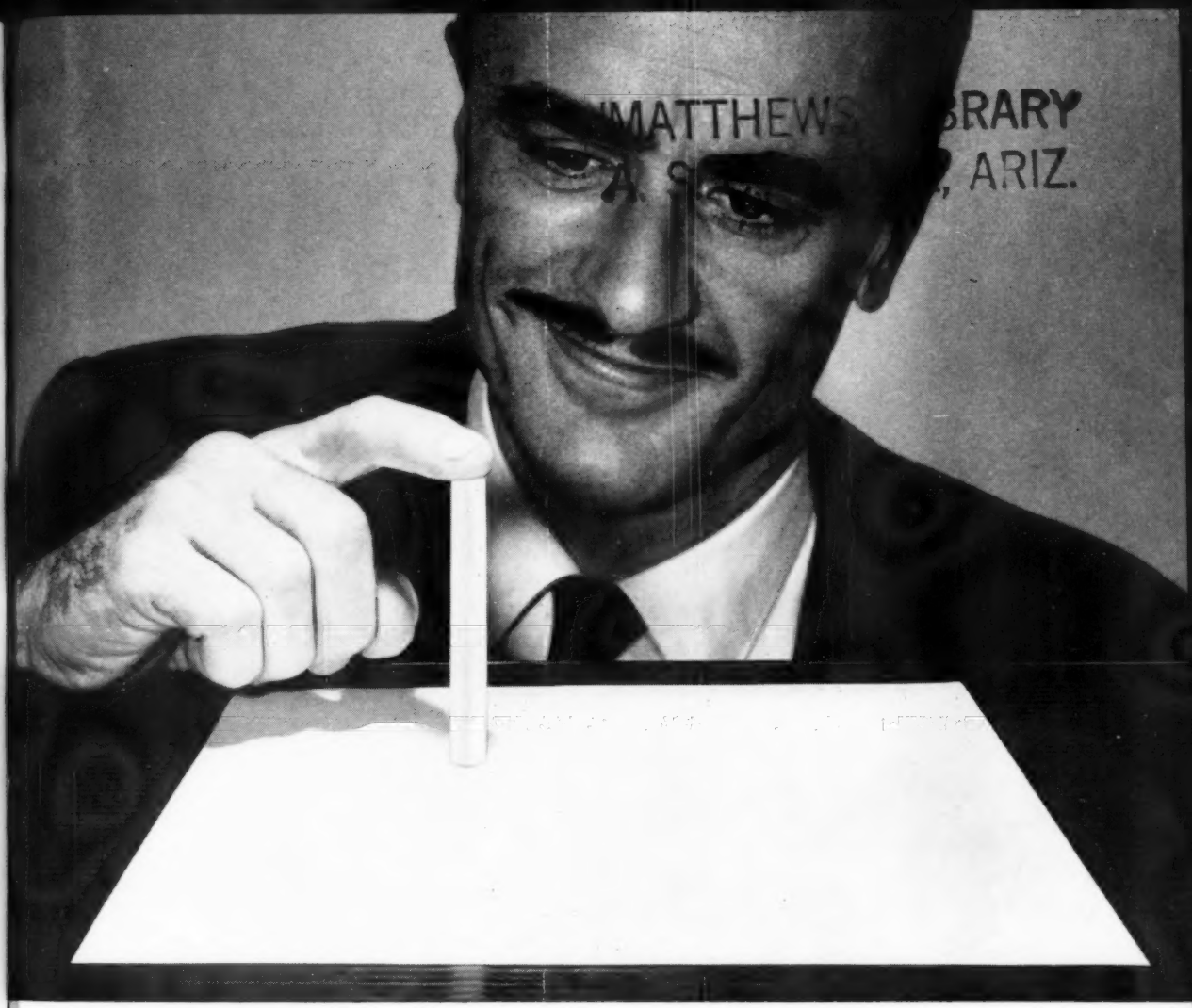
editorial

Salute to NOMA

AS this issue of *Office Management* goes to press members of the National Office Management Association from all parts of the country are converging on New Orleans for the 40th International Conference and Exposition of the organization. This year, as in the past, the schedule is a full one; concurrent sessions have been planned for two days of the conference to offer registrants the widest possible latitude of choice in selecting the topics of greatest current interest to them.

A fortieth anniversary, if not as hallowed an occasion as a Golden Jubilee or a Centennial, is nonetheless a substantial accomplishment, an event which suggests a moment of review and evaluation. This is particularly appropriate in terms of office management, which has advanced so rapidly in the past forty years. The scope of the subjects to be discussed at this year's meeting graphically illustrate the widening horizons of office administration, and the increasing span of responsibility encompassed within it. Among the subjects to be covered at this year's conference: Building Incentives in Workers; the Manpower Future through 1965; Progress through Communications.

These are important subjects. These are complicated subjects in which no one person has all the answers. But they involve problems which must be solved by the office—and exploration of these problems at conferences such as the one in New Orleans will help achieve those important solutions. It could well be said that each of the previous 39 conferences held by the National Office Management Association has both illustrated the expanding responsibilities of office administration, and has in its turn helped office administrators to meet their growing burdens. We know that this year's conference will repeat that pattern, will make everyone who attends it a little better prepared for the duties that fall to him in the year ahead.



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